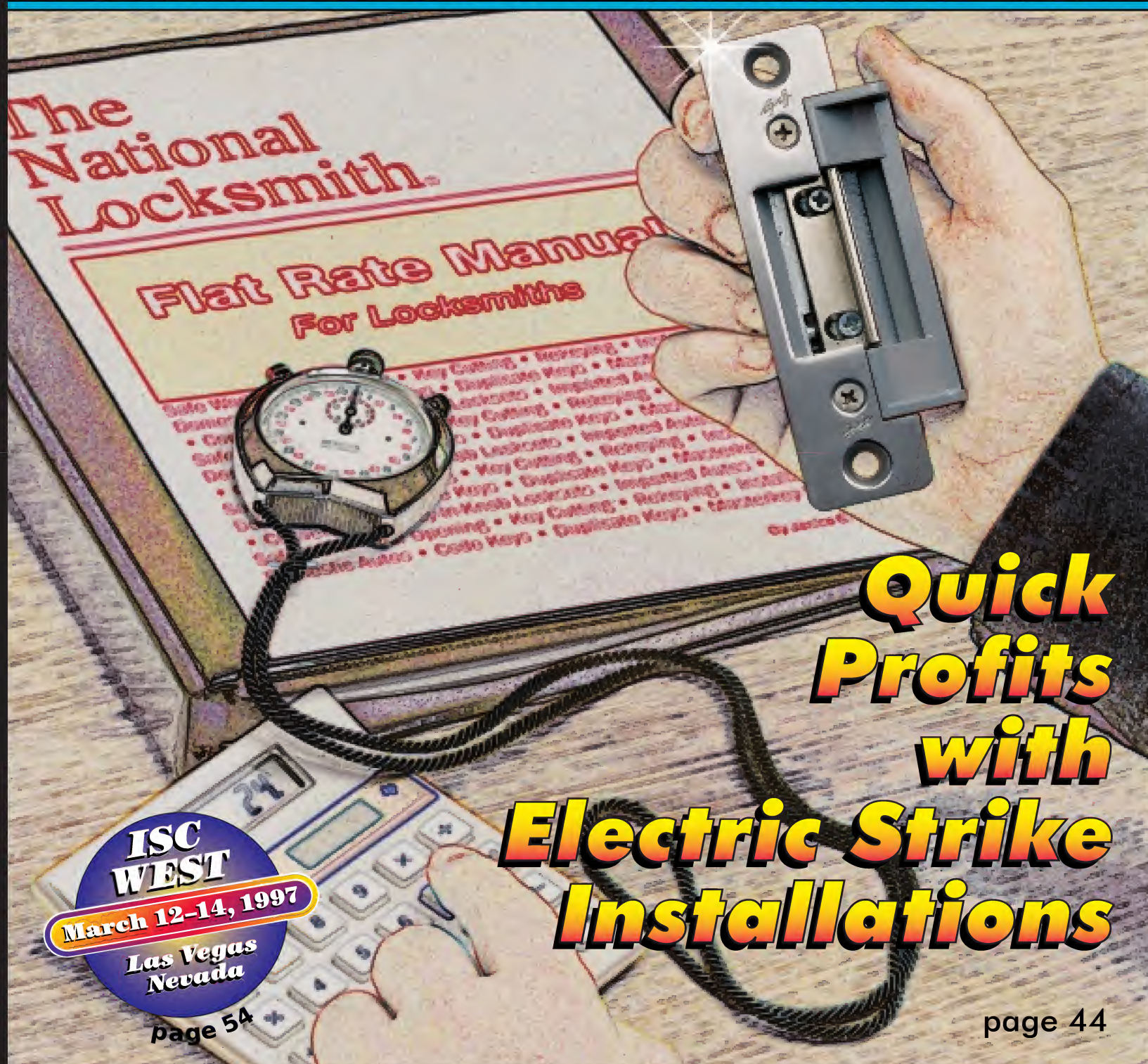


\$5.00

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The National Locksmith®

March 1997
Volume 68, No. 3



**Quick
Profits
with
Electric Strike
Installations**

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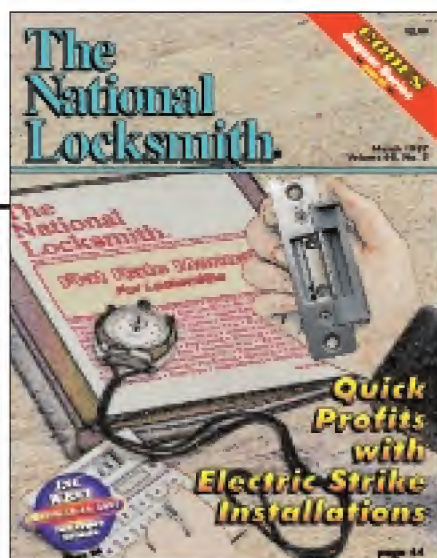
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WEST**

March 12-14, 1997

Las Vegas
Nevada

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If you are still installing electric strikes the old fashion way - by hand - you're not only wasting time, you're losing money as well. There is a better way.

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COMMENTARY



<http://www.TheNationalLocksmith.com>
User name: national User ID: G5fh84

Do you want to buy direct?

Years ago, back before personal computers, the space shuttle and the Internet, I used to rep for locksmith industry manufacturers. In that capacity, I got to know many manufacturers and distributors and to understand both their businesses. I also met many locksmiths. A very common question from locksmiths was could they buy direct from the factory.

Recently, a major manufacturer in our industry, M edeco Security Locks, has decided to do just that...sell direct to the locksmith. My original expectation was that almost all locksmiths would greet this move with great anticipation. However, from talking to you, many are suddenly questioning how well this direct distribution will function for your business.

Yes, you can now call the factory and order merchandise directly. But will you save money? Will your small order be treated with priority as your distributor had done? And will you still have ready access to all the parts and materials you need? These are the questions I am hearing from locksmiths regarding M edeco.

M edeco has done a good job addressing these questions in advance. But what they cannot tell you is if other manufacturers will take similar steps in the future. Will the day come when you can, or have to, call a dozen factories to order merchandise for the week?

I do not think that is likely to happen. While M edeco seems well positioned to fulfill your order, I think most manufacturers are not. After all, M edeco had laid the groundwork by constructing their QuickShip facility, and were already in possession of a warehouse from which they could ship to individual locksmiths around the country. Few other factories, if any, are now in the same position.

While some locksmiths applauded the change, many others have quietly complained about

problems they anticipate in the future with M edeco. Frankly, the entire subject simply reinforced for a lot of locksmiths the value their distributors add to merchandise by stocking, cataloging and delivering on a near daily basis.

If you are a fan of M edeco's locks, then more than likely, you will stick with them and you'll soon see if their distribution center will meet your needs. If you are committed to purchasing from your distributor, and if he was one of the many companies to lose the line, then perhaps you will switch to a new brand.

In either case, I do not expect your distributor to disappear. In fact, the M edeco shift might serve as a wake up call to distributors, forcing them to consider even more intently just how well they add value to the product. Of one thing, though, you can be sure...the market always changes.

Speaking of changes, many of you own our excellent GM Steering Column course. Be aware that update #1 has just been published. It contains hot new information. See the ad on page 101.

Also, Bob Sieveking has written two new books, one on Safe Deposit Box Service, and one on how to open safes. They are both beautifully illustrated. See the ad on page 38.

Marc Goldberg



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Receive locksmith info by E-Mail
Write us at: NATLOCK@aol.com

Marc Goldberg
Editor/Publisher

March 1997 • 5

Mango's Message

Have you ever gone through a period in life when you just felt like climbing to the top of the highest mountain, throwing your hands up in the air, and screaming at the top of your lungs to the heavens above "I Give Up, Up, up, up!" Well, the month of January for me, was one I just as well soon forget. If it wasn't for bad luck, I wouldn't have had any luck at all! And, if it wasn't for my stick-to-itive, stubborn, never give up nature, Mr. Marc Goldberg would have been fetching me off the top of Mount Everest.



Between my wife, Rachel's car, and my car, we had been going through a steady stream of perpetual problems for over a year. Everything that could go wrong, was going wrong. Then in the month of January, the volcano really erupted on my wife's car. First it was the alternator. No sooner fix that, and the fan belt broke. No sooner fix that, and the carburetor needed work. No sooner fix that, and the valve gaskets were replaced. No sooner replaced them, and the engine needed a tune-up. No sooner tune it up, and the fuel pump went out. No sooner fix that, and the heater core started leaking. No sooner fix that, and I receive a frantic call from my wife saying the car committed suicide and was pronounced dead at the corner of Main and Union Mill.

After just investing almost \$1,000.00 in the vehicle within a three week period, the car decided to go and blow itself up. Needless to say, my wife needed a new means of transportation A.S.A.P..

I contacted a buddy of mine who deals in used cars, and picked up an older Oldsmobile Cutlass Supreme in excellent shape. All I needed to do now was get the car to my wife.

Most of you don't know, but I have dual residency. I live in Chicago and my wife lives in Kentucky due to our job situation. We routinely commute to visit on the weekends. Because of our long distance romance, I was going to drive the car to Rachel, and then hop on a plane and fly back to Chicago. Instead, my dad decided to come along, so he followed me in my car and off to Kentucky we went.

The week prior I had been having trouble with my car intermittently starting, but for the last few days it was doing O.K., - knock on wood.

Misfortune, Mishaps & Tragedy

We left on a bitterly cold Saturday morning, and arrived in Kentucky that afternoon unscathed, and with both cars doing fine.

The next day Rachel was going out of town for work and I needed to get back to Chicago. That afternoon we both went our separate ways, me in the driver's seat of my car, my dad snoring on the passenger's side, and Rachel on a plane to Ohio.

I no sooner crossed the Kentucky border going into Indiana, and the roads suddenly became treacherous. Numerous cars were littered on the sides of the road, spinning off left and right after hitting ice patches. The winter in the Northwest was a particularly brutal one with record breaking snow fall, and mercury dropping temperatures. Driving was extremely challenging and potentially dangerous.

I was cruising along just fine when a horrifying sound thumped from the undercarriage of my car. My dad snapped from a deep sleep and screamed "What was that?"

"I just ran over some debris in the road" I replied.

Continued on
page 8.

Greg Mango
Managing Editor



Mango's Message

Continued from page 6

A horrible wreck had just occurred, scattering shrapnels of metal across the highway. As I passed the wreckage all that was left was a massive ball of blackened crumpled metal, with puffs of smoke spewing from the top. It didn't look good. I envisioned a pack of vultures circling overhead, waiting for the final verdict.

I let off the gas and slowed my vehicle down in case I had punctured or blown a tire. Meanwhile I carefully listened for any unusual sounds, and checked my gauges for any sign

of trouble. Everything appeared to be all-right. I took a few deep breaths, settled my nerves, kicked the car back into overdrive, and kept on going. All the while I was silently praying I would make it home alive.

For the next 150 miles, I passed nothing but State Police, Fire Trucks, Ambulances, Salt Trucks, and Tow Trucks, tending to the needs of accidents and stranded motorists. It was one of the most surreal driving experiences I ever had. Then the traffic came to a screeching halt, as everyone stopped dead in their tracks, with semi-trucks lined up as far as the eye could see. It was evident another major accident had occurred, and we weren't going anywhere for a while.

Everyone slapped their transmission into park, cut their engine — except for the 18-wheelers — turned off their lights, laid their seats back and went to sleep. We were stopped on that Indiana highway for almost 1-1/2 hours.

Finally the roar of cranking engines filled the air, and State Troopers were knocking on the doors of 18-wheeler sleeping cabins to awake several truck drivers that had settled in. Traffic was finally on the move.

I started my car, dropped the transmission into drive, punched my foot on the gas pedal, and went... nowhere. With a line of traffic that seemed to circle the globe, piloted by impatient snarling drivers glaring behind me, I was frantically shifting the transmission from gear to gear. Nothing helped. I wasn't going anywhere.

The only thing I could do now was push the car to the side of the road. As my dad and I hopped out to give it a shove, I found myself standing in a pool of shiny red transmission fluid. Apparently my road hazard encounter 150 miles back wounded me after all. I was slowly bleeding to death all the while, and didn't even know it.

As I popped open the engine compartment hood, a motorist in a van stopped along side me and asked if we need help, or maybe a ride.

"A ride would be fine" I replied, so I locked up the car, and my dad and I jumped in his van.

After exchanging pleasantries, this gentleman named

Gene, asked where we were going.

"Chicago" I said. "Where are you going?"

"I'm going to Chicago also" Gene replied.

As it turned out, Gene was coming from Louisville, Kentucky, and gave us a ride all the way home.

Now a determination on what to do about my car needed to be made. I knew I must have punctured a hole in the transmission pan, yet I had driven 150 miles or more with a hole in it. Considering that, I didn't think the hole could be very big. On that assumption, I figured that if I refilled the transmission, I just might be able to limp it the rest of the way home. At the very least I could get it off the highway.

My dad and I decided that if we could find enough of the correct transmission fluid at 1:30 in the morning, we would shoot right back out. We found the fluid, and back on the road we went.

It was about an 80 mile trek back, and when we arrived at where my car was left, it was gone! The State Police must have had it towed. At least I hoped they did!

I stopped at a gas station, and called the State Police to see if they had my car towed, and if so, where it was? Sure enough, they had it towed, and provided me with the information on where it was.

I called the towing company that retained my car, and a sleepy, groggy voice answered the phone. They informed me that I was unable to reclaim my car until 8:00 a.m. It was now 3:30 a.m. We were too far to drive back home, and then drive out again, so we drove to the towing company's location, parked the car, and went to sleep until 8:15 a.m..

It cost me \$85.00 to get my car, and I still had a hole in the transmission pan. Fortunately, there was a Ford dealer down the street to fix it. It took the dealer four days to do a 30 minute job, but I did get my car back, along with a \$120.00 bill.

There are times when life seems to be nothing but one big obstacle course, and you just want to call it quits. I can assure you there have been many times I have felt the same, but I never give up. The key to getting through it all, is to not focus on just the negative, but realize the positive. Admittedly, that's not always easy to do, but it is the best thing to do. For example; I could dwell on all the bad things that happened to me last January, but the fact is, no matter how bad it got, I made it through. When I was stranded in the middle of the world on a frigid night, someone was there to lend a helping hand. I made it through.

The bottom line is, no matter how bad things get, it can always get worse. I'm fortunate to still be here able to experience the tough times while others are not, and a few of them I passed by on that January night.

When things are put into perspective, it doesn't seem all that bad after all. **TRL**



March 1997

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

In Memory of H. Roger Grace

H. Roger Grace, a long time member of the craft, died January 10, 1997. He was born February 5, 1905, in Des Moines, Iowa. As a youth, he moved with his family to Omaha, where he graduated from Central High School. After attending the University of Nebraska (Lincoln), he worked for AT&T in Omaha for several years. In 1945 he moved to Hastings, Nebraska, where he bought a business, and changed the name to Grace's Bike & Key Shop. In 1968 he and B Gifford Sager acquired Circle-Ess (the key machine manufacturing company) and moved its operation to Hastings.

In 1972 he sold the retail/ service portion of Grace's Bike & Key Shop, and renamed the supply division to Grace's Wholesale & Supply. He also continued with Circle-Ess, Inc. until his death.

Roger was a member of ALOA (#1549) and he was the founder of the Nebraska Locksmiths Association. He was happy to share his knowledge with others in the trade. His wholesale customers will remember him for the extensive notes of advice on usage that he often typed on invoices, and for his refusal to establish a minimum order amount.

Roger and his wife, Irene Fogarty Grace (who died in 1983) are survived by four children: Margaret I. (Mrs. Merrill E.) Westrope; Herbert R. Grace; E. Helen (Mrs. W. L.) Thomas; and Dorothy G. (Mrs. Rocky) Friend, CML.



industrial companies, providing access control, electronic alarm and electromechanical locking service. This is one of our biggest areas. We are agents for Fingerscan, a biometrics product that controls access, and these units are used in quite a few safety and security areas. Safety, to prevent unauthorized entry or operation in dangerous areas of highly specialized equipment; Security, to control access to highly attractive and sometimes difficult to replace items.

We are also kept busy servicing safes, powder magazines, providing extra heavy duty padlocks and locking devices that can survive attacks in areas where response to alarms is measured in days.

Another area that keeps us busy is servicing, replacing, and repairing automotive locks that are damaged by the fine dust that prevails in this hot and dusty part of Australia. This is known as the "Outback," where distances of hundreds of miles separate neighbors, and the doctor comes in an airplane and lands on the roads. It is hot and dry and we see only a few inches of rain a year and then it all comes in 3 months.

Continued on page 12

Working Down Under

I am a locksmith from Australia with 28 years experience and was the National Training Officer of the Master Locksmiths Association of Australia last year. I am now working as a manager of one of the four

branches of Ruswin Locksmiths of North Queensland Australia.

I manage the Mount Isa Branch. Mount Isa is a mining town of approximately 28,000 people supporting the huge Mount Isa mine and approximately 8 other mines in the area. The Mount Isa mine is one of the largest Copper, Lead, Silver and Zinc mines in the world, employing over 5,000 people. The mine is well over one mile deep and has its own underground rail system.

We have a staff of four who are kept very busy supporting an area that extends a radius of 400 miles around Mount Isa. Mount Isa is approximately 500 miles inland from Townsville, our Head Office which is located on the Eastern coast of Australia, almost 2,000 miles north of Sydney.

We are the only locksmiths in our area serving primarily the heavy

The National Locksmith
1533 Burgundy Parkway
Streamwood, IL 60107
Attn: Editor

Continued from page 10

This is our summer now and the temperature last week was over 110 degrees. At this temperature, your feet sink into the pavement and you really can fry an egg on anything. Leaving a pen on the dash of the vehicle will end up in a mass of molten plastic. Mobile phones can meet the same fate if not looked after carefully.

Despite the harsh and rugged country, there is a beauty in the unusually shaped rocks of the region and there are areas of green where man-made dams and lakes have turned the desert into a lush oasis of tranquillity, teeming with birds and animal life.

While this is the Outback, it is also the home of high technology and modern facilities. We have 32 pay TV channels, every home seems to have a Video and Color TV, and every second home a computer. A walk through our modern shopping center reveals a mobile telephone on most belts or handbags. The engineers, technicians and managers here are highly trained specialists running some of the most modern computerized equipment in Australia.

I have been challenged to my limits in an area that has a diverse range of work. You name it we work on it. We have two fully equipped mobile vans, one based on a Toyota Land Cruiser fitted with long range tanks to give us the capability of traveling the long distances between fuel stops. It isn't uncommon to have to travel 500 miles before being able to refuel.

My purpose for this letter was to contact you with my E-Mail address, to encourage you and to ensure you that you have many readers through the wonderful people at Locksmiths Supply Company. Many of the stories you tell are foreign to our experience, but many are warnings of what will be our problems in the near future. Licensing is one of those, a thorny issue in many states in Australia, as well as the need for today's locksmith to be an educated, well trained professional or to suffer the fate of the cooper and blacksmith of days gone by.

Once again thank you for a truly informative and helpful publication.

Cliff Forrester
Australia

On Line Education

The very best of luck to all at *The National Locksmith*. As of this writing I'm reading my first batch of e-mail. I'm positive I will be "educated" in many areas of locksmithing through this service. Thanks again for providing it.

Dan Calanan, CBL
New York

Sears Fleet Keying

I had to stop and write to you all the newest thing Ford is doing for it's fleet customers. Sears out here in the Great North West, has a contract with Ford to remove and replace the rear door lock and side door lock on its full size service vans. The new locks are keyed alike but do not match the front doors or ignition. The cab and rear compartment are partitioned off with a metal wall for security. When a key is used to enter the rear or side doors, the key will unlock the door, but will relock when the key is removed. According to Sears all their new service vans, 1996 and up, will be set up like this for security.

Carlok
E-Mail

Charge More and Grow More

I have been operating a business for over 20 years and have faced many competitors, many who are no longer around. Many were price cutting hardware stores and home stores, part-time locksmiths working out of their homes and car trunk. We are still in business, still making money and having to hire and train more technicians.

We are "Security Professionals" dealing in high security key systems, access control systems, CCTV, safes and vaults, and servicing many major commercial accounts. We do very little residential work and turn down a lot of automobile work (leaving it to the price cutters). Our sales are up 20% this past year over the previous year and we have been doing this for the past few years since we stopped competing with price-cutters, home stores and hardware stores.

We offer PROFESSIONAL services to commercial accounts which they cannot get from the part-timer, home store, hardware store or Wal-Mart. We have increased our prices, are the highest priced on lockouts when we do them and the business is PROFITABLE.

There is no way that I would agree that the locksmith needs to adjust their prices downward to meet the home stores. He or she should increase their professional services by specializing and become the best at what they do. All the small stores that go out of business when Wal-Mart comes around lose out because they have the same failure oriented attitude. PROFESSIONAL LOCKSMITHS will grow, make money and enjoy what they do if they will charge what their worth, and if their worth what they charge.

Lee Griggs
E-Mail

Cat Napper

In the course of working on an outside job, I came upon one of the most unusual and interesting things that has ever happened to me in the field. I received a call for a job to install a police lock, the type which uses a long angle bar which goes into a metal "cup," or strike plate, mortised into the wooden floorboard. This style of lock is by far not the most decorative and can be very cumbersome to use, but grudgingly, I have to admit that when a frame is very badly split, it does provide an alternative way to secure a customers door.

The customer was a lady of somewhere in the area of 70 years old. She was not the type of customer that thought somebody was breaking into her apartment and moving the dishes around and such (how many of us have had those)? but rather a very intelligent person, in complete control of her mental faculties.

After completing the job, and checking the lock, I did what I normally do which is to allow the customer to try it from the inside and out, so that I was sure she understood how to use it. Afterward, I packed up the tool-pouch, and my toolbox, and went on to my next call.

Two days later, I got a beep from my boss. "Brian, you've got to go back to the lady that you installed the police lock for. She says that she locked the door, but it was open when she came home." Hmmm, I thought. She either didn't lock it properly, or there is some kind of problem that I didn't notice when I installed it.

Continued on page 14



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Continued from page 12

So back I went, I again tried the lock in every possible manner. There was no problem with the lock. And, again, I had the customer show ME how to use the lock. Again, not a problem or a hitch. I assured her that it was working properly, and off I went.

The next day as you might have guessed, beep-beep-beep! "Hey, Brian! "What's the story with that lady and the police lock? She says that it still isn't working! You're going to have to go back again." Oh man, I thought. This is no longer funny! Back again I went, but my patience was admittedly starting to wear thin. Through all of the motions I went again...then she did the same....no problems!

I was out of ideas. As I stood there talking with the customer, both of us at our wits end, her cat came over, and as cats are known to do, brushed up against my leg, and past me. Then, over to the police lock bar the cat went and actually opened the lock right in front of both of our AMAZED eyes. It was the CAT that was the culprit!

I promptly thanked the cat for it's confession, and was happy that I wasn't losing my mind. The customer, and the guys back at the shop, all got a BIG laugh out of that one. After that, the lock was "fixed" by locking the cat in the bathroom. I'm sure the cat was regretting that it had shown us how it opened the lock in the first place.

*Brian (Phil) Hecht
Virginia*

Tip Winner

I wish to thank you and your staff for selecting my tip as fourth place in the year-end drawing. I was very pleased and surprised at the same time.

I enjoy the magazine. I also like the new format and the enriching articles and naturally the Technitips column with Jake Jakubowski.

I also have sent letters of thanks to All-Lock and A-1 for their prize contributions.

Again, thank you and I hope '97 will be a good year for all at *The National Locksmith*.

*Dennis Harmon
Colorado*



SECURITY CAFÉ

H.E.S., Inc. 7500 Series Strike Passes U.L. Fire Door Test.



The test was a success.. The H.E.S. models 7501 and 7505 are now U.L. Listed for fire doors, category 10B, for use on class "A" three hour or less doors. This is the highest rating an electric strike can obtain from U.L. The 7501 and 7505 models are available now for immediate shipment. h.e.s. is very excited to offer such a superior electric strike to our customers and we look forward to a successful partnership in 1997.

Harloc's New Builder Package



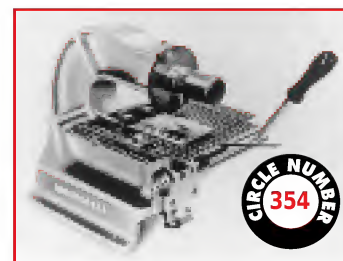
In a move to increase brand recognition and uniformity across its product line, Harloc, a leading producer of locksets to builders, recently redesigned its builder product packaging. In addition, Harloc used the redesigning exercise to strategically increase the functionality of the packaging.

While creating strong and distinctive graphic and logo consistency across its product line, the design of the new packaging also carries two revolutionary additional benefits: 1) the heights of all the boxes are the same size and the widths of the boxes are all proportional to each other, thus creating optimal efficiency of space in product cases, on pallets, and on product shelves; 2) each product box has a corrugated insert which holds the product in place, while also compartmentalizing select pieces and strengthening the box

Series which is fail safe and requires power to lock and the 2000 Series which is fail secure and requires power to unlock.

The SpaceSaver fits in 1-3/4 inch diameter frames with no wires in the door. The locks are mounted in the side jamb or header. They are UL listed as auxiliary locks and 3/4 inch diameter solid stainless steel bolts are available. The entire lock is concealed so security is greater and installation is easier, faster and more economical. There are 12 design models in fail-safe or fail secure, 12 or 24 VDC, for any application need.

marking press. Included is the Model 40B (shown) which features a large easy to read



dial and a carriage table which automatically advances after each impression.

Lockmasters®, New High Speed and Carbide Tipped Hole Saws



Use Lockmasters' new High Speed Hole Saw with pilot bit and arbor to effectively cut through the outside skin of GSA Red Label security files. Then, switch to the Carbide tipped Hole Saw to cut through the hardened drawer-head bolts.

These hole saws (with carbide-tooth tips) cut through materials standard bi-metal hole saws will not. Some additional advantages to using the carbide-tipped hole saw include: greater wear resistance than bi-metal, greater heat resistance than bi-metal, 1-1/2' (38mm) cutting depth, precision ground angles and clearances, and faster cutting rates.

New Self-Contained Remote Alarm By Harrison

Harrison Electronics introduces the first totally reliable self contained remote

Security Café

**DROP IN FOR
TOOLS, TECHNOLOGY
& EQUIPMENT**

structure (which both protects the product during shipping and also allows for taller pallets).

JLM Stocks New Electric Bolt



JLM Wholesale is pleased to announce that we now are now stocking two new SpaceSaver Electric Bolt Locks by Security Door Controls. They are the 1000

Simplified Key Marking By Stamp & Tool Co.

A line of specialized key marking equipment is being featured by Numberall Stamp & Tool Co Inc. This equipment is ideal for hotel and motel industries, Universities, school districts and housing authorities as well as locksmiths. It is useful when large number of keys must be stamped with identifying numbers and letters.

The equipment ranges from the economical Model 23 Typeholder to the Model 137 motorized bench

SECURITY CAFÉ

Continued from page 16



CIRCLE NUMBER
356

alarm, the HellFire 300. The easy three-wire basic installation is fully upgradable to 7-wires using a plug-in harness. The code learning microprocessor lets you easily field program extra transmitters which are compatible with all HellFire alarm models.

The basic installation provides these features: two HellFire remote transmitters; multi-function status LED, chirp arming signal with Quiet Control delete; 123 dB six tone siren; built-in fully adjustable shock sensor with remote set; current sensing or hardwire install; remote

panic; code-learning, programmable passive/active arming.

Ultra Dog Secures Doors Without Compromising Egress.



CIRCLE NUMBER
357

Now you can offer your customers an additional safety feature for their doors: Ultra-Dog®, a revolutionary new after-hours security device. Ultra-Dog can be easily installed on any standard door, inswinging or outswinging, single or double, with or without mullion. Once the necessary hardware is in place, Ultra-Dog can be engaged in a matter of seconds to provide

up to 5,000 pounds of resistance per side, rendering the door virtually burglarproof. But in the case of an emergency, Ultra-Dog can be disengaged immediately to allow egress.

Ultra-Dog is lightweight-even a child can disengage it. Built out of hardened steel and composite plastics, it's extremely durable and maintenance free. It can be verified as security from as far as 200 feet away. Most important, it is the first security device to provide a safe alternative to those padlocks and elephant chains found on many doors which can turn rooms into death traps during a fire.

American Lock Adds Stainless Steel Discuss Padlock



CIRCLE NUMBER
358

American Lock Company™ a leading manufacturer of high quality padlocks and accessories, introduces 2 3/4" stainless steel discuss padlock, sold in both retail and commercial packaging. American Lock's new 2 3/4" round discuss lock has a shielded, case hardened steel shackle to prevent defeat from sawing or prying, and a deadbolt locking level for added security. It is made of

stainless steel for maximum protection in all kinds of security-sensitive applications, including vending machines, arcade games, car wash equipment, and on other coin-operated machinery.

Its solid brass cylinder is made to survive the most brutal weather conditions, making it ideal for locking up refrigeration units, freezers and other commercial appliances, as well as bicycles, motorcycles, storefront gates, fences, and garages.

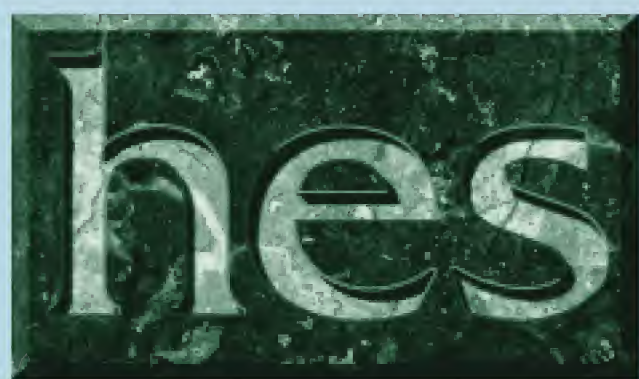
Adams Rite Announces New Entry Trim



CIRCLE NUMBER
359

Adams Rite Manufacturing Co., continues its reputation for great looks and durability with its new line of entry trim. The key feature, a heavy duty clutching mechanism, protects the locked lever if forced either up or down. All trim models use the same solid core components for maximum strength and consistent performance. Each model fits previous Adams Rite trim installations for all door types and are field rehandable. Available in three handle styles and eight architectural finishes. Meets ADA, California Title 19 and Title 24 Guidelines and ANSI/BHMA Grade 1.

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From Peg Boards to Microprocessors



by Fernando Pires,
Vice President,
Morse Watchman, Inc.

A lock is only as safe as the bearer of its key. It's an inherent security problem that's existed since the invention of the key cylinder lock. Over the years, security managers have wrestled with the problem of key management. The obvious solution: place the keys in a locked cabinet with limited access. Unfortunately, this solution only perpetuates the endless key-lock cycle, and when viewed on a large scale, poses a serious security concern.

Key management plays an integral role in the overall security of any facility. Traditional key lock boxes and armored key cabinets, as indestructible as some appear to be, have substantial shortcomings on several levels. The most apparent problem is that they too lack security. Once an individual has penetrated a traditional key box or cabinet, they have essentially picked all the locks — whether they be for external entrances, office doors, warehouse cages, safety deposit boxes or cars. In any event, the security of the entire facility has been breached.

Key identification and tracking are also on-going problems. All keys within a traditional lock box or cabinet need to be labeled or coded. This provides both an obvious advantage from a key management perspective, with an equally weighted disadvantage from a security perspective. Key tracking also requires additional measures to record who removed which keys at what time. Needless to say, omitted entries and



1. Morse Watchman's modular KeyWatcher System can be expanded to house more than 1000 keys with multiple locations for large facilities.

missing keys increase liability exposure and can result in costly re-keying to assure that minimal security levels are maintained.

Key Management Goes Hi-Tech.

There are viable key management solutions available today that greatly expand upon the "lock box" approach by employing microprocessor-based technology. As a pioneer in the market, Morse Watchman's key management systems incorporate a host of advanced functions designed to improve security and provide detailed tracking.

Microprocessor-based key management systems such as the KeyWatcher System from Morse Watchman offer a number of distinct

advantages. First and foremost, they allow security management to assign specific access levels. Instead of a master key, users are assigned individual PIN numbers that are entered on the "smart box" keypads. Once the door opens, they only have access to the keys they need to complete their specific task. The released keys can be grouped by function, locations or placed on individual rings. All other keys remain individually locked in place. Key release can also be set by time and day of week as a means of linking key access to a specific function or operation. Since the PIN codes are a programmed function, they can easily be edited at a moment's notice without concern for re-keying the box. With Morse Watchman's KeyWatcher System, up to 750 PIN codes can be assigned and activated.

In addition to limiting key access to authorized personnel, smart boxes eliminate virtually all of the problems inherent with traditional key lock boxes. For example, keys stored in a smart box are not restricted to specific peg locations within the box. This eliminates pattern location placement. Systems like Morse Watchman's KeyWatcher utilize smart keys that can be placed in any open key receptacle. The KeyWatcher offers an exclusive "random return" feature that allows any key to be returned to any smart box networked into the system. In addition, smart boxes like Morse's KeyWatcher are stand-alone systems that do not have to be closely monitored by security personnel —

Continued from page 20

keeping them free to concentrate on other security-related activities and boosting their productivity.

Automatic Key Tracking Capabilities.

Smart boxes also provide detailed key tracking capabilities. With a traditional lock box, manual logs need to be continuously maintained and monitored to assure security. The time a key is signed out and the duration it is missing is subject to scrutiny. With a smart box such as the KeyWatcher, a detailed log is continuously maintained for all system activity. The systems can store up to 400 transactions internally and deliver unlimited tracking records when connected to external PCs or a network. Transactions stored in internal memory can also be downloaded to a PC or network for archiving. The system also accommodates modem connection for remote operation and programming of all features.

A variety of tracking reports can be generated by smart boxes such as the KeyWatcher. Reports can be issued by user PIN codes, individual key codes, keys presently in use, overdue keys or for all transactions. Summary reports can also be generated for any given time period (from "x" date/time to "y" date/time) to reconstruct a series of events. Reports can also be printed for hard copy storage and review.

The programmable nature of smart boxes lends itself to large installations more readily than any other means of key management. Systems like the KeyWatcher, for instance, can be expanded to house more than 1000 keys in multiple locations. Modularity also makes the KeyWatcher easy to implement on a small scale with the ability to expand as necessary.

Another critical factor to consider when evaluating key management systems is its ability to integrate with your security hardware. Smart boxes like the KeyWatcher are designed with programmable alarm modes and alarm contacts to interface with external alarm systems. Unlike standard key lock boxes, smart boxes know when they're being tampered with by someone. Sensors can be programmed to automatically activate an on-board audible alarm if the door is pried open and activate power failure alarms.

The KeyWatcher system for example, offers programmable alarm modes to safeguard operation: Overdue Keys when a predetermined time restriction has expired; Illegal Entry when a box is opened without a valid code; Door Open for an extended period of time; Illegal Access after three attempts to enter a PIN code; and Illegal Key Removal.

Smart Box Applications: The Economic Advantages.

There are numerous applications where smart boxes such as Morse Watchman's KeyWatcher can virtually pay for themselves. In addition to the added security benefits, smart boxes help prevent costly re-keying whenever a key is misplaced or security personnel change. With their key tracking capabilities, smart boxes also reduce the amount of time required for employees and management alike to tend to administration functions. When you view the big picture, it's easy to see why smart box systems provide an economic advantage.

The following are a few of the key application areas where Morse Watchman's KeyWatcher System has been successfully deployed to date:

Office Buildings and Complexes

These present one of the greatest challenges when compiling a key management system. Numerous private offices, conference rooms, rest rooms, stock and supply areas, computer and telecommunications rooms, all warrant security measures. The first of which is a locked door. Large facilities can easily have hundreds of keys for security management to contend with on a daily basis. The versatile programming capabilities of smart boxes help security management keep close tabs on key usage. As an added benefit, systems like the KeyWatcher can be integrated into centralized alarm systems and computer networks.

Hospitals and Clinics

These provide another target-rich environment for smart box key management systems. Controlled substances, expensive equipment and supplies demand safe keeping in an environment where there's generally high levels of activity around the clock. Here, systems like the KeyWatcher serve to benefit the hospital's health care staff as much as security by providing a centralized key management system with controlled accessibility.



2. Morse Watchman's KeyWatcher System eliminates the need for master keys. Instead, individual PIN numbers are assigned and provide personnel with predetermined access levels only to those specific keys they need to perform their job functions.



3. Morse Watchman's KeyWatcher provides detailed key tracking reports by continuously and automatically maintaining an activity log to record when a key was removed/ replaced and by whom.



4. Morse Watchman's "smart-keys" feature a 1/8" steel ring that locks into an ABS plastic housing. Smart-keys are reusable and are available with tamper proof rings for added security.

Morse Watchman's KeyWatcher is presently being used by several correctional institutions around the world. Inmate riots and escape attempts pose the greatest breach of security. The KeyWatcher minimizes the risk of unauthorized access by removing keys from peg boards, providing detailed key tracking and instant notification of key box tampering. In a prison facility located in Mississippi, two KeyWatcher units are used in tandem of each other. One is in the central control area and the other is in the booking area. The keys in the control area are emergency back-up keys for inmate cells and the main doors whose electronic locks will not function in the event of a power failure. Only management level personnel have access to keys stored in the control area.

The other KeyWatcher System is installed in the booking control area. It holds ten keys that open the holding cells and vaults used to secure the personal property of the inmates. Other keys in this cabinet are for the outside gates and storage rooms. As a result, the KeyWatcher System effectively provides two levels of security within the single facility.

Apartment Buildings

Another ideal application for smart box technology is apartment buildings. Whether stored in a management office or on a superintendent's key ring, apartment keys require close handling and attention. Smart boxes such as the KeyWatcher provide a secure environ-

ment for storing large numbers of keys with the added benefit of accountability. Individual keys can always be easily traced from the system's detailed tracking reports along with instantaneous

alarm notification if a missing key has not been returned within the allocated time interval.

Auto Dealers and Rental Facilities

Auto dealers and rental facilities deal with a slightly different type of key management problem. Keys for new cars, rentals and vehicles in for service need to be accessible for a

variety of reasons throughout the course of a day. In this user environment, systems like the KeyWatcher are employed specifically for their tracking capabilities. It allows the dealership to maintain a secure location for keys in their respective departments with open access by authorized staff.

Construction Sites

Also ideal venues for systems such as the KeyWatcher are construction sites. As construction progresses and work crews require continued access to secured areas, key management security can quickly disintegrate due to missing and lost keys. Smart boxes provide a centralized location for key control and tracking and can help eliminate security breaches as well as expensive re-keying.

There are numerous applications for smart key management systems. New key management technology provides unsurpassed efficiency through automation, systems integration and cost efficiency. It's the key to tighter security on every level. For more information call Morse Watchman, Inc. at: 800-423-8256. **TNL**



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Servicing the 1995 Saturn



1. The 1995 Saturn SL1.



The 1995 Saturn is similar in almost all respects to previous year models (as far as locksets are concerned) with the exception of a mid-year change to the ignition. Saturn produced a number of different models in 1995 such as; A 4-door sedan with model designations SL, SL1 and SL2; A 2-door coupe with model designations SC1 and SC2; And a wagon with model designations SW1 and SW2. The SL is the base Saturn coming without optional packages. For the locksmith, however, lock cylinders are identical for all vehicles.

On some models, electrical switches have been added to the back of the lock, but the cylinder is identical to all other models, none the less. Excepting the removal procedure for the tailgate/trunk lock, removal procedures for the ignition and door lock are identical for all Saturns. This article covers the lock removal for a 1995 Saturn SL1 (see Photograph 1.)

The 1995 Saturn includes a driver and passenger side airbag. While it is not necessary to remove the airbag module or steering wheel to remove and service the ignition lock, it is advisable to disconnect the battery for safety's sake.

IGNITION REMOVAL

The ignition on the Saturn is part of a two-piece, clam shell column. It is manufactured by All-Lock (part #1359) and is retained in the lock housing by a single spring button retainer. To remove the ignition, a key must be used or the lock picked to turn the plug to the ACC position. At this point the retainer can be depressed and the cylinder removed (see Photograph 2).



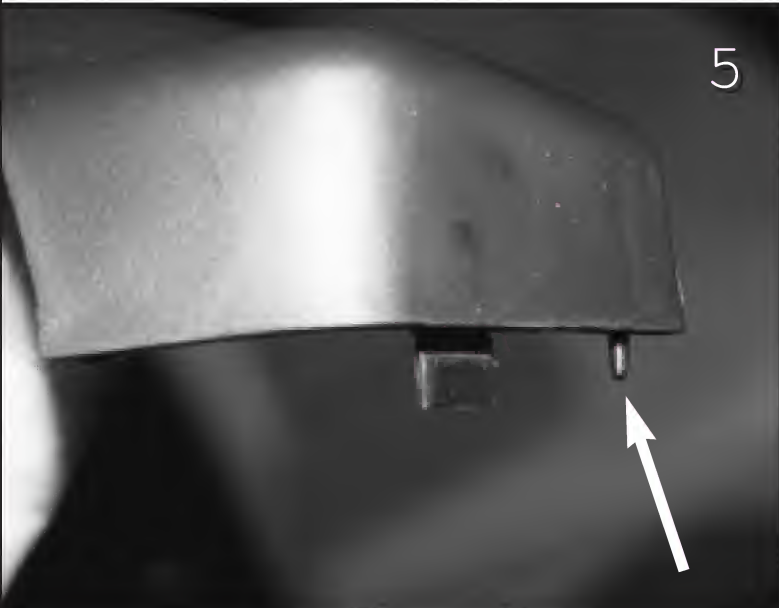
2. The Saturn column and ignition.



3. The bottom of the steering column shroud.



4. Remove the column shroud screws using a 7/32" socket. It will be necessary to modify the socket slightly to allow access to the two hidden screws.



5. An alignment tab is found on each side of the upper shroud. Be careful not to break them while separating the shroud halves.

6. It is not necessary to remove the lock's plastic bezel. Simply turn the plug, depress the retainer and pull the lock out of the housing.



7. Dropping the lower shroud exposes the lock housing. Before a new lock is installed, the lower shroud must be placed back in position.

To remove the ignition, disconnect the battery. Loosen the tilt lever and tilt the steering wheel up to give better access to the column shroud screws (see Photograph 3). Here, five screws are found, three are immediately visible and two are found inside recessed areas located just behind the steering wheel.

Remove the screws using a 7/32" socket. While other procedures recommended removing these screws with a 5mm socket, we found this dimension to be too small.

Remove the three exposed screws first. Before removing the two hidden screws, it may be necessary to grind down the outer diameter of the socket. The extremely narrow recess that these screws are mounted in do not provide ample room for the standard width socket. By making the simple modification to the socket, the screws are easily removed (see Photograph 4).

With the screws removed, gently remove the upper column shroud. Be careful as there is an alignment tab on each side of the shroud that are easily broken (see Photograph 5).



With the top shroud removed, there is easy access to the ignition's retaining button. Unlike other published articles, it is not necessary to remove the lock's plastic bezel. Simply use a key or pick the lock to turn the plug to the ACC position. Depress the retainer and pull the cylinder out (see Photograph 6).

While reassembly is accomplished by reversing the procedure, it should be noted that the lower column shroud surrounds the ignition cylinder. Before the cylinder can be reinstalled or replaced, the lower shroud must be placed back into its assembled position (see Photograph 7).

DOOR LOCK REMOVAL

Simply stating that the outside door panel of the Saturn must be removed in order to service the door will bring nights of sleepless torment to most locksmiths. This unfortunate response, I think, is due to the service nightmare locksmiths encountered on the Pontiac Fiero door lock.

Often referred to as the "Bloody Knuckle," the Fiero door panel is an incredibly difficult one to remove without injuring one or both hands and/or breaking the door panel. Fortunately, the "Saturn Experience" is just that - an "Experience" - a simple, well thought-out door system. For despite having to remove the outside body panel to service the door lock, its removal is much simpler to accomplish than most inner door trim panels. In fact, the panel is easily removed in four steps.

The first step is removing the door handle. Unlike many vehicles today, the door lock and door handle are not part of



8. The Saturn door lock and handle.

one unit. Instead the door lock is separate and is surrounded by a black plastic bezel. This bezel is part of the body panel and does not need to be removed (see Photograph 8).

To remove the door handle, gently lift it up. This will expose a small plastic, two-piece clip. Use a small punch to press the small button found at the center of this clip. Gently pry the clip out (see Photograph 9). This allows that end of the handle to slide off the handle lever arm. Sliding the handle over removes it from the other handle lever arm (see Photograph 10).

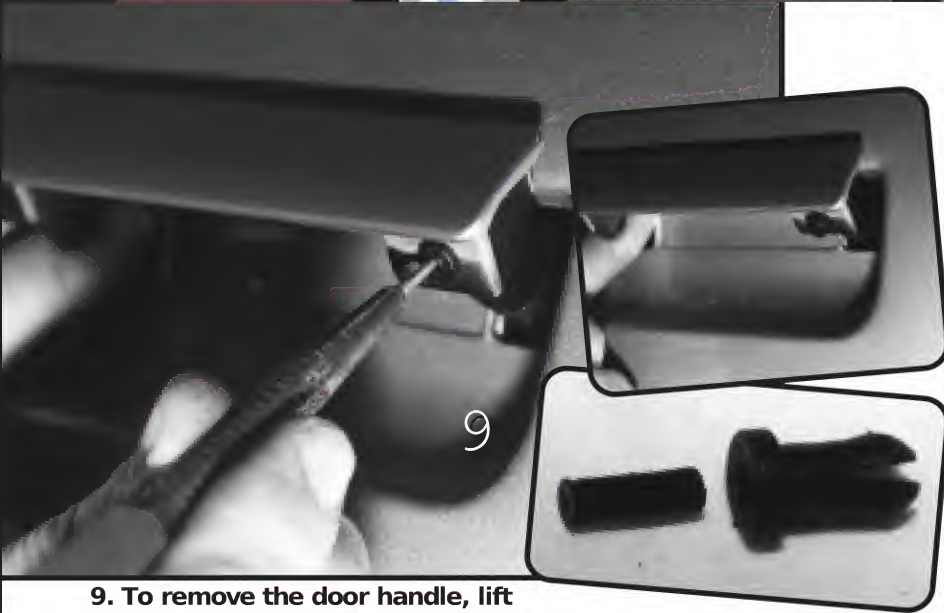
The second step is to remove the mirror. Start by removing the inside trim piece that covers the mirror mounting bolts. One screw holds it in place. The upper end of the trim piece is covered by some of the rubber window molding. Gently pull it down and out. If the rubber molding



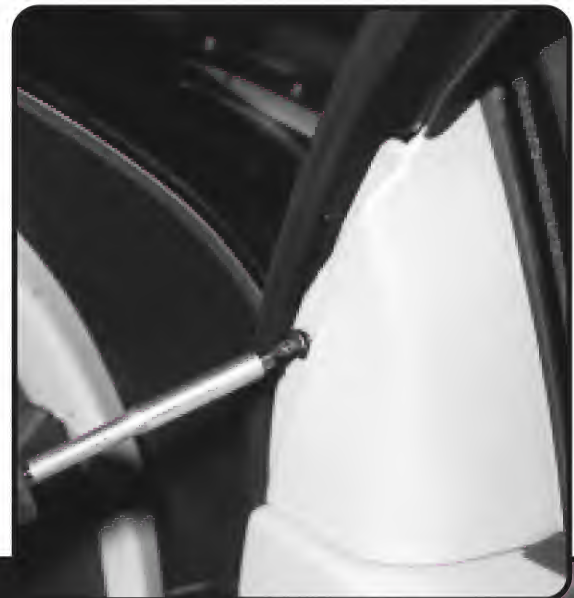
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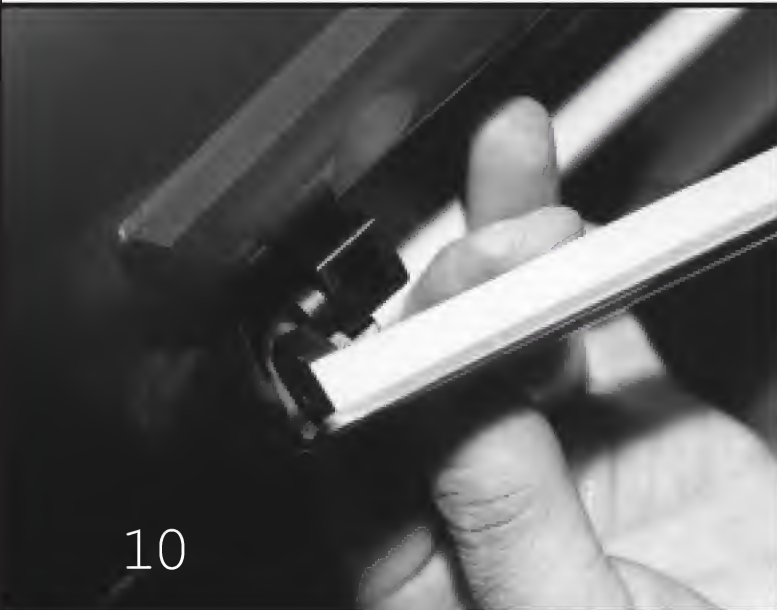
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9. To remove the door handle, lift the handle, depress the center of the retaining clip and remove the clip.



11. Remove the trim piece that covers the mirror mounting bolts, and disconnect the electrical connector.



10. Slide the handle off the handle lever arms.



12. Remove the three 10mm bolts and mirror.





13

13. The belt molding is friction fitted. Simply roll the piece back to remove it from the door.



14

14. Remove the nine T30 Torx head bolts that hold the body panel to the car.



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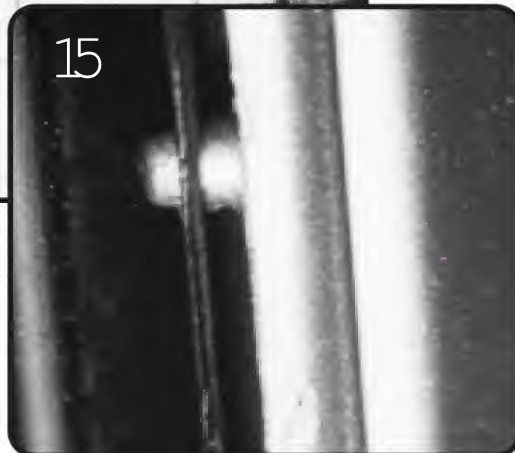


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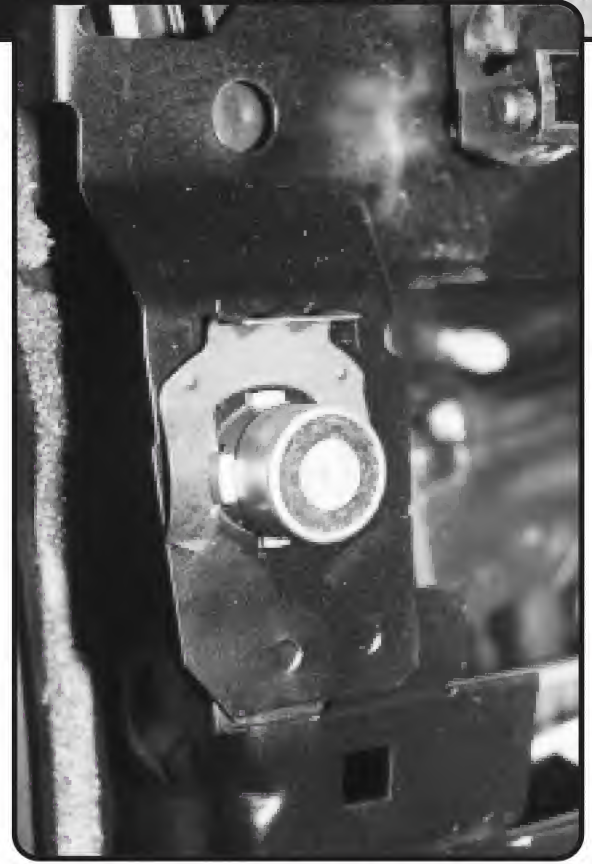
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15. The door panel can now be removed. When reassembling, remember to properly mate the alignment button on the body panel and its matching hole on the door frame.



16. With the panel off, all door elements are exposed, including the easy to remove door lock.



comes out, it will snap back easily when the trim cover is replaced (see Photograph 11).

Next, disconnect the electrical connection to the mirror's position controller. Then use a 10mm socket to remove the three mirror mounting bolts (see Photograph 12).

When replacing the mirror and the trim piece, remember to properly replace the sound dampening foam pad!

Step three is to remove the belt molding or outside window weather-strip. This is a friction fit piece that is easiest to remove by starting up near the front (mirror end) and gently rolling it back off the vehicle. There is a tab at the latch side of this piece that fits into a slot in the body panel, be sure that this is not broken (see Photograph 13).

Step four is to remove the nine bolts that hold the outside panel to the vehicle. These bolts require a T30 Torx driver bit for removal, and are evenly spaced around the perimeter of the inside door edge (see Photograph 14).

With the bolts removed, gently lift the panel away from the vehicle's door frame. There is a small, black plastic piece found at the top, hinge side of the panel. This piece overlaps



17. The trunk lock on the '95 SL is beneath two body panels and part of the deck lid.



18



18.
Use a 10mm
socket to
remove the
six bolts
holding the
top body
panel in
place.



19

19. Use a T30 Torx driver to remove the lower body panel.

or traps the window seal at this part of the door and is easily broken if you are not aware that it is there. Be careful.

Also, during reassembly, there is a small alignment button on the inside edge of the body panel. This button fits into a mating hole on the door frame and helps with the alignment of the door panel (see Photograph 15).

With the panel removed, there is clear and easy access to the door lock. Visible is the complete door system, including the window components and the lock and latch components. As seen in the photograph the lock and latch linkage are

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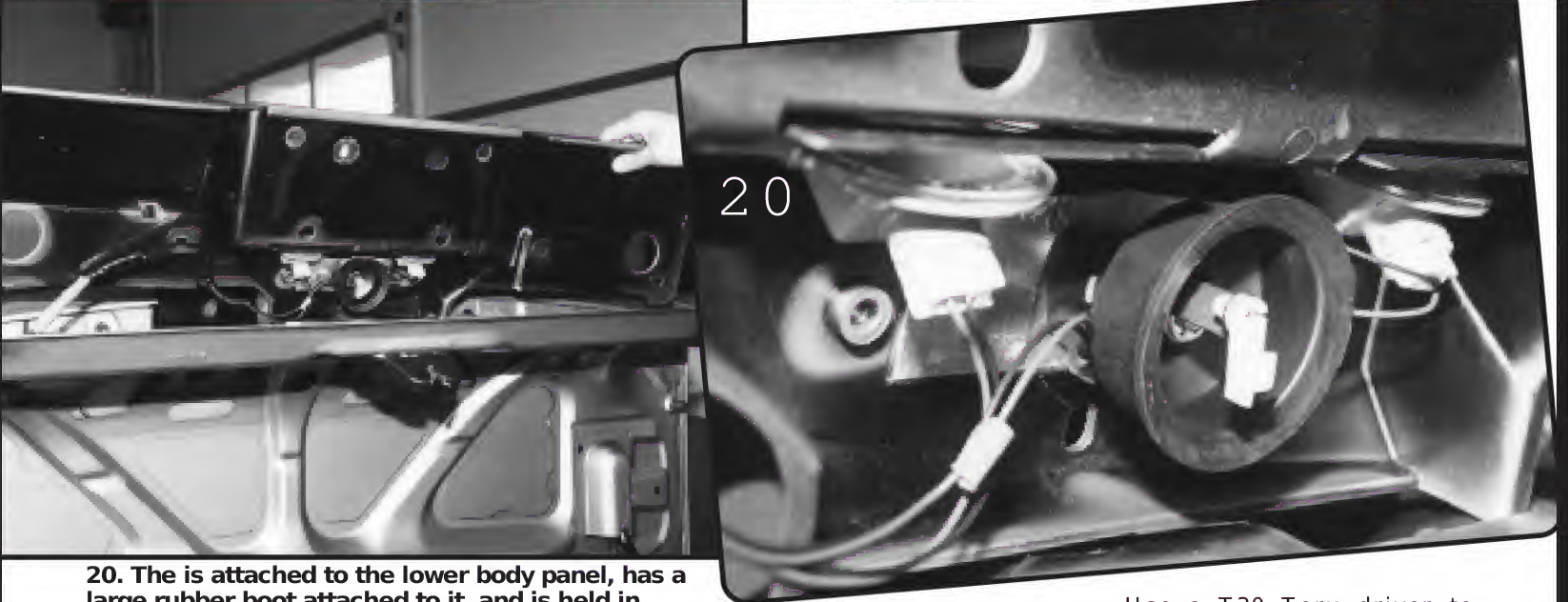
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20. The is attached to the lower body panel, has a large rubber boot attached to it, and is held in place with a common horseshoe spring clip.

horizontal and fully exposed. This makes for an easy opening. The door lock is held in place with a common horseshoe spring clip that is easily removed (see Photograph 16).

TRUNK LOCK REMOVAL

While requiring the removal of two body panels, the trunk lock of the '95 SL is also easy to remove (see Photograph 17).

To remove the lock, open the trunk and use a 10mm socket to remove the six bolts that hold the top body panel in place (see Photograph 18). With this panel removed, two of the five screws holding the panel in place can be seen.

Use a T30 Torx driver to remove these five screws. Two will be found on each side of the license plate, one is found underneath the license plate (the plate will have to be removed), and the last two screws are inside the rubber bumpers found at the corners on the inside edge of the deck lid (see Photograph 19). With the screws removed, lift up and remove the lower panel.

The lock is part of this lower panel, has a large rubber boot attached to it and is held in place with a common horseshoe spring clip (see Photograph 20).

That concludes the service procedures on the '95 Saturn. Admittedly, not the easiest vehicle in the world to service, but it really does look much more difficult than it really is. After you get a few under your belt, you should have no problem, and the fear will subside. **TNL**



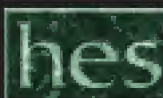
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BEGINNER'S CORNER

Screw and Hand Change Combination Locks



by
**Jim
Langston**



1. A typical screw change combination lock.



2. Remove the wheels and place them in order.



3. Clean the wheel post using a cloth and cleaning fluid.

This article will be covering two basic safe locks and how to change the combinations on them. The two locks covered will be a screw change and a hand change.

Screw Change Locks

A typical screw change combination lock has a driver wheel with a screw in it as seen in Photograph 1. This particular driver wheel will drive three other combination wheels. With the safe open, remove the back cover plate.

To change the combination, first remove the cotter

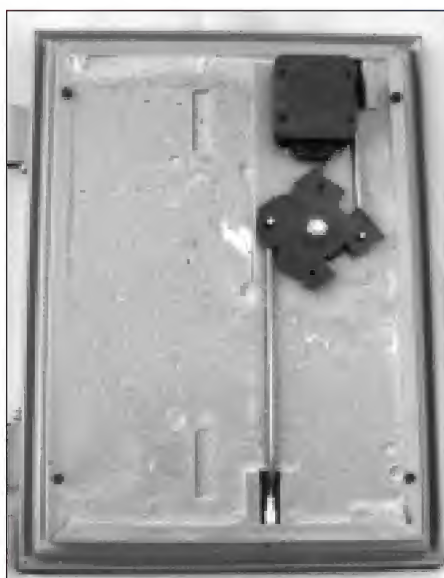
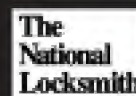
pin and the drive wheel will come off. Once removed, hold the drive wheel and unscrew the dial to separate the two. With the drive wheel off, remove the screw and nut (some have just a screw and some have a bolt and nut on them). Place the screw in another hole on the drive plate to change the combination.

Before reassembling the lock, remove the rest of the wheels one at a time and place them in order (see Photograph 2). Be careful not to get these wheels out of order. Once all the wheels are removed, clean the wheel post using a cloth and some cleaning fluid (see Photograph 3). Now use a quality lubricant such as GE Versilube and apply a thin film on the wheel post. A light coat is all that is necessary. DO NOT over grease the wheel post.

Now, you can reassemble the lock and establish the combination. To do so, turn the dial in the proper direction lining up the gates parallel to the fence as seen in Photograph 1. As each gate aligns with the fence, make



4. This Fire Fyter uses a common hand change lock.



5. Remove the back cover to expose the combination lock.

a record of the number. After establishing the combination number for all the wheels and the drive wheel, replace the back cover plate and work the combination several times.

NOTE: I never close a safe without working the combination at least three times consecutively. If a safe combination works three times in a row, it should open from then on.



6. The wheel pack will be attached to the combination lock cover.

Hand Change Locks

Next we will cover a common hand change lock such as the one used in this Fire Fyter safe (see Photograph 4). First, make sure that your combination works properly. If it does, remove the back cover on the inside of the door, which will expose the combination lock (see Photograph 5).

Next remove the back cover plate on the combination lock which the wheel pack is attached to (see Photograph 6).

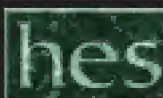
To remove the wheel pack, most will be secured by either a horse shoe clip or a flat round — spirolox — washer (see Photograph 7). The spirolox retainer comes off by using a

Continued on page 39



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Continued from page 37



7. The wheel pack will be secured by a horse shoe clip or spirolox washer.

sharp object such as a pocket knife, to work the clip up on one side and around by working the knife all the way around the wheel post.

Once the retain-er is off, you can remove the wheels and spacer washers one at a time. Lay them out in order, do not mix them up (see Photograph 8). The wheels are made up



9. The number this line or index mark is pointing to should be the correct combination.



8. Remove the wheels and spacer washers one at a time.



10. Unsnap the inner portion of the wheel from the outer.

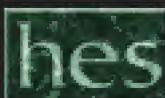


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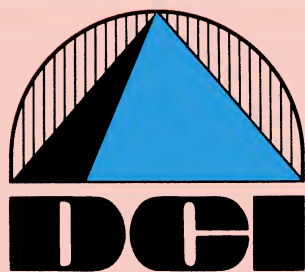
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of three primary parts. The outer wheel portion, the inner wheel portion which snaps into the outer portion and the moveable fly. On almost all hand change locks, the fly is a fixed portion of the inner wheel.

On the outside of each wheel is a series of numbers which correspond to combination numbers. On the inside portion of the wheel will be an index mark such as a scribe line. The number this line or index mark is pointing to should be the correct combination number for that wheel (see Photograph 9). Check to be sure the mark on the wheels corresponds with the actual combination of the lock. If not, the dial is not splined properly, a wheel may not be in the correct position or a wheel may be assembled with the wrong inner and outer portions.



11. Re-assemble the lock and test the combination several times.

To change the combination, unsnap the inner portion of the wheel from the outer and reposition the index line with another number (see Photograph 10). Do the same for the other wheels.

Before re-assembling the lock, clean and lubricate the wheel post as before. Re-assemble the lock and test the combination several times before closing the door (see Photograph 11).

Screw and hand change combination locks are very common, each having its own idiosyncrasies. There are times when they can be very frustrating to work on. Through experience you will learn how to deal with each ones idiosyncrasies to better determine what measures need to be taken to properly adjust for trouble free operation.

Points to Ponder

When you're over the hill, you pick up speed. **TNL**

Reed Report

While Scatter Shooting I found Margaret Stiggleman is happy and well in Ft. Myers, Florida. Understand she is hitting quite a few golf balls and playing a lot of Bridge. Margaret was my associate editor for more years than either of us care to remember. She had many, many friends in the industry.

This month we continue where we left off from last months Crime Prevention residential security recommendations.

CRIME PREVENTION

RESIDENTIAL SECURITY RECOMMENDATIONS (continued)

SECURITY CLOSET:

- a. Line a closet with 3/4 plywood, install a cylinder dead bolt lock with one inch throw bolt, and pin the hinges.

PADLOCKS (GARAGES AND GATES):

- a. Install a hasp so it will conceal the screws when locked. The hasp should be of case hardened construction to resist cutting. The padlock should be case hardened also.
- b. Record number on bottom of lock, then remove the number so a duplicate key can't be made by strangers.

KEYING LOCKS:

- a. All "same brand" locks may be keyed alike.
- b. If keys should become misplaced, lost, or stolen, it is not necessary to purchase new locks, but they should be "re-keyed." It is more economical to re-key than buy new locks.

OTHER CONSIDERATIONS:

- a. Keep yard clear of papers and circulars (usually indicates absence).
- b. Keep mail collection current, for same reason.
- c. Keep an eye on your neighbor's home, during their absence; report any suspicious situations.
- d. Keep police department's number near your phone for instant use if needed.
- e. In the event double cylinder locks or burglar bars are placed on windows, always leave a key in the lock when you are home; for immediate exit from house in case of fire. Thus avoiding panic situations and getting trapped in your home.
- f. Do not hide keys around porch, burglars will know all the hiding places.
- g. Get to know your neighbors - they can save your home.



Yours For Better Security,

Bill Reed
Bill Reed

Scatter Shooting while wondering whatever happened to ... Chris Criscieoli

SAFETY CONSIDERATIONS:

- a. Add a fire extinguisher to your kitchen and work shop areas.
- b. Install a smoke detector to critical areas.
- c. Install a carbon-monoxide detector if you have a gas furnace or hot water heater.

Talk to your insurance counselor and find out what you need to do to reduce your insurance premiums. Check on safety features, security features and any other suggestions that would help you reduce your premiums. By doing this, you help yourself by reducing your rates, securing your home, and reducing your risk of losing your life in your home when it can be prevented.

That concludes the list of Crime Prevention's security recommendations. I would suggest that you copy this list and make a flier of it which you can pass along to your customers. This will not only provide them with many of the important security measures they should be aware of, but it will also prove to be a very effective sales tool.

Q. How do you open the new Ford Expedition?

A. Pull upward on the outside door handle and you will see two holes under the handle. The vertical locking linkage can be accessed through the hole closest to the rear of the door. A Fondue fork or similar tool can be used to push the linkage up to unlock the truck. **TNL**

If you'd like to attend a Bill Reed seminar, choose from the following. For more info, contact Bill directly at (904) 476-2799.

March 1	Ft. Wayne, IN	June 7	Colorado Springs, CO
March 15	Houston, TX	June 21	Billings, MT
April 5	Wilmington, DE	June 28	Ft. Walton Beach, FL
April 26	Marysville, KS	July 12	Anchorage, AK
May 3	Manchester, NH	Aug. 9	Nashville, TN
May 17	Casper, WY	Aug. 23	Spokane, WA
		Sept. 7	Chicago, IL

**COVER
STORY!**

A

STRIKING

by Bill DeForrest

The only way to make your business more profitable is to charge more for your labor, do the work faster or upgrade every job you work on.

Difference

"Time is money." We have all heard that expression and it holds true in our everyday life. For example, when was the last time that you traveled to a trade show across the country on a train? Most of us have a microwave oven in our kitchen to fix a quick snack and a fax machine in our office to send and receive information that is needed immediately. As we get busier, time is money.

The only way to make your businesses more profitable is to acquire more business, charge more for your labor, do the work faster or up grade every job you work on. While competition may not let us charge more for our service, and the increased competition may also dwindle the market potential, we can up grade the sale and work smarter not harder.

Profit Potentials

There are many ways to up grade a sale when doing service work. Examples can be the simple addition of a hardened cylinder guard or armored strike plate when doing a combination change. On the other end of the spectrum is the addition of an electric strike with a new latch for door control. An electric strike is an easy way to control access to a storefront door. This can be for security reasons or for convenience from a remote location. However, this service must be sold, not many business owners are aware that strikes can be installed in aluminum storefront jambs.

If you wait until you "get a call for it," you may be waiting a long time. Get a jump on your competition and market your skills. Remember the easiest sale to make is when the customer calls you for service work, they already want to buy security and piece of mind.

Electric strike installations in aluminum doors can be a profitable addition to your business. A little planning ahead of time is required to make the first job a smooth one. The first and most asked question is how much to charge. There are several ways to come up with a price. A call to your competitor to see how much they charge is the easiest. This also can be the most disastrous because you are assuming that they know what they are doing. The most accurate way is to first estimate the time it will take to complete the job and the hardware needed.

The National Locksmith prints a book titled **Flat Rate Manual for Locksmiths**. The use of this book will allow you to have an accurate estimate of time. This is a great book and has a lot of information on other types of installations and jobs, and the book can save a lot of costly mistakes.

According to the Flat Rate Manual, a new installation will take a little over three hours to complete. This will give you a good starting point. Look the area over and take into consideration complicated or longer wire runs. As you gain skill and use the correct tools, your job time and quality of work will improve.

What Do You Need

The next consideration is the type of strike to install. Quality strikes are manufactured by many companies including Adams Rite, H.E.S., Rutherford, Folger Adams, Von Duprin and others. To choose the correct model, a little information is required, such as: length of the strike lip needed? This is determined by how the door has been hung in the jamb. Offset hung, meaning that the door is mounted flush with the door jamb, or center hung, the door is mounted in the

center of the frame. If installing for a center hung door, make sure that there is enough clearance inside the jamb for the strike. The glass pocket that runs top to bottom inside the jamb varies in size, find this out before you cut.

Will the strike be A/C or D/C powered? A/C will give the familiar buzz when activated, D/C will be silent. One last option is fail secure or fail safe. Most strikes that are used on storefronts are fail secure models. This means if power is lost, the strike will remain locked. The other option is fail safe, you guessed it, if the power fails the strike will be unlocked!

Method of Choice

Next we get into the installation. There are different ways to cut the strike area in an aluminum jamb for the strike opening. One way that has been used is to outline the strike, drill a series of holes inside the lines, and chisel out the opening. The use of a file is needed to do heavy clean up and final filing to size. This method is time consuming and can be messy.

Another method that has been used in the past was to trace the strike outline on the jamb, and cut it out with a saber saw. Again, this is not the most time effective method and results can vary. Care must be taken to saw inside the lines. Again, the use of a file is needed for final shaping.

For this article, we wanted to show two methods of installations. The first installation will be done without the use of a template or guides of any kind. The second to be with the use of the router and template guide. Both installations will be timed so we can see the time difference — if any — between the two.

The Clock is Running

For the free hand installation, we wanted someone with experience in installing electric strikes. This will give us a true installation time. The time shown is for strike installation only and does not include wire runs or electrical connections. This will vary from job to job.

For the free hand installation, we enlisted the help of our friend Fabio Albornoz of Lentz Lock and Key. Fabio is not new to electric strike installation, having installed well over 200 in the last few years. We chose Fabio because of his experience on the subject. With his background, there would be no lost time trying to figure out how to do the job and it would be a real time to compare. His tool of choice is a Dremel tool equipped with a fiber cut off wheel. Our strike was installed with a Major Manufacturing HIT-41 series aluminum template and a router equipped with a 1/4" down shear bit and 3/8" outside diameter template guide.

Freehand Installation

1. The electric strike is located on the door jamb in the desired position and a scribe is used to outline the profile on jamb.



2. A Dremel tool is carefully used to cut-out the strike opening. With the cut-out complete, a file was then used for final fitting and clean up.





3. Notice the eye protection - VERY IMPORTANT! Never operate any type of power tool without eye protection.



4. With the strike cut-out cleaned, the strike with mounting tabs attached is used to determine proper mounting hole location.



5. The mounting tab holes are then drilled and countersunk so the fastening screws are flush with the surface when installed.



6. Both mounting tabs are then installed.



7. The entire free hand installation took a total of 44 minutes to complete. The end result is a very clean free hand installation. Now we will do the same installation using a template, and compare the difference.

Continued on page 48

Continued from page 46

Template Installation

8. Strike located is first marked on the jamb. The two pencil lines locate the top and bottom of the latch where it makes contact with jamb.



9. The installation template is then attached to jamb with self drilling screws. There is no need to drill and tap screw holes saving considerable time attaching the template. These same screw holes will later be used to locate the strike mounting tabs.



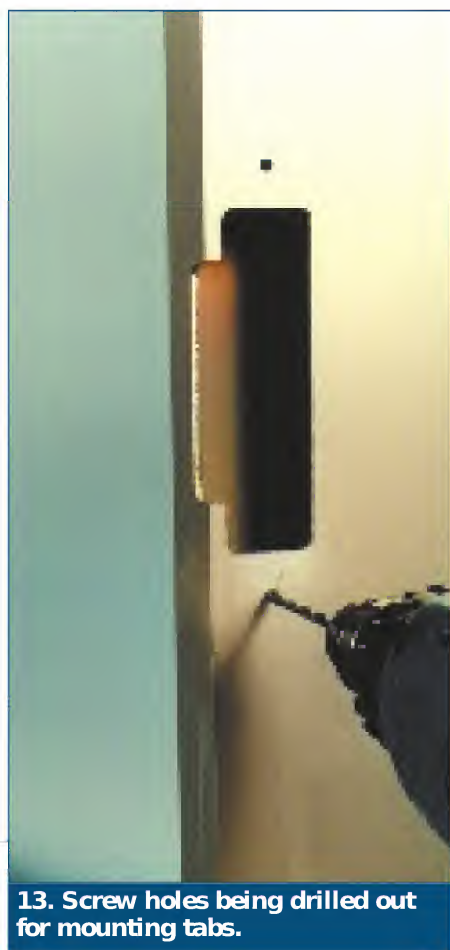
10. Strike area being routed. Router is equipped with a 1/4" down shear bit and 3/8" template guide. It cuts quite rapidly.



11. The routing is soon completed. The chips are brushed off and the template removed.



12. The lip area for the strike is being squared off followed by final clean up of any burrs.



13. Screw holes being drilled out for mounting tabs.



14. The template mounting screw holes are now being counter sunk for the mounting tab fastening screws.



15. Mounting tabs are easily installed and the fastening screws are flush with the jamb.



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16. Completed installation with an elapsed time of 7 1/2 minutes. Believe it or not, it didn't take much longer to actually install this lock than it did for you to read about it. Remember, when using power tools, always wear eye protection. Hearing protection is also recommended when using a router.



17. The use of specialty tools will make jobs faster, accurate and more profitable. There is no doubt that a monetary investment needs to be made for such quality tools, but the reward will soon ease the initial sticker shock.

The Bottom Line

As you can see, there is a great time savings using a router and template as opposed to free handing a job. We were able to shave over one half hour of time from an experienced installer. To do a free hand installation the first time, expect to spend more time than was taken in our story and there is always the chance of error. Your first installation with a router may not be as fast as the one in the story, but it will still be faster than free handing it, plus there is little chance for error.

As more aluminum strike or lock installations are experienced, confidence grows and work time diminishes. The first job is always the longest. You will find that a router and template overall will provide a faster, easier and more accurate installation with less chance of error than a free hand job every time. The main thing is to sell the job and get into the game. There is good money in aluminum door work. After helping with this story, Fabio will be changing to a router and template.

Regardless of whether you choose to use electric strikes as an addition to your business, try any type of add on sale. You will be surprised how much this can add up to at the end of the year. **TNL**



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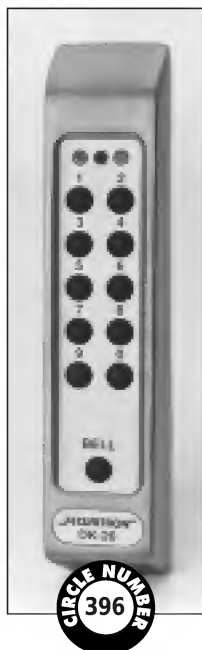
PRODUCT SHOWCASE

The ISC West Show - March 1997

Circle the numbers on the RAPID REPLY CARD and send it in.

Securitron Introduces Wiegand Output Keypad

Securitron Magnalock Corporation introduces a new line of keypads designed to interface with all access control systems that normally use Wiegand technology card readers. The DK-11W and DK-26W act as a unique "front-end" to nearly all access control systems with the keypad connecting electronically to the customers' existing or new access control system exactly as a traditional card reader.



CIRCLE NUMBER
396

The DK-11W is a self contained indoor unit that fits in a single gang box. The DK-11W comes mounted on a stainless steel backplate with a 3 x 4 pattern durable million duty cycle keypad.

New STI Stopper® Seal Gives Added Security for Protective Covers

Stopper Seal consists of a frame lock and breakaway plastic seal that must be broken to lift the protective cover and gain access to the protected manual pull station, emergency shut-off button, computer room extinguisher system button or other similar device. "People are very reluctant to break anything!" stated Taylor. "Our Stopper Seal provides a level of security between Stopper® II or Mini Stopper® II with an integral warning horn and those without."

This breakaway seal may be installed on most STI protective covers used to protect devices from



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physical damage, vandalism, the weather or any hostile environment. Used with covers to protect manual pull stations, Stopper Seal would reduce the risk of false fire alarms without restricting access of legitimate alarms, said Taylor.

ACSI Series 1500 Electric Dogging Now Available

Architectural Control Systems, Inc. (ACSI) Series 1500 Electric Dogging allows continuous electric latch retraction and dogging of fire-rated exit devices simultaneously. When the ACSI 1540 is energized, first time mechanical activation of the push bar will continuously hold the push bar down and the latch bolt retracted in the unlocked position. When power is removed or interrupted, the latch bolt will extend and the push bar is released.

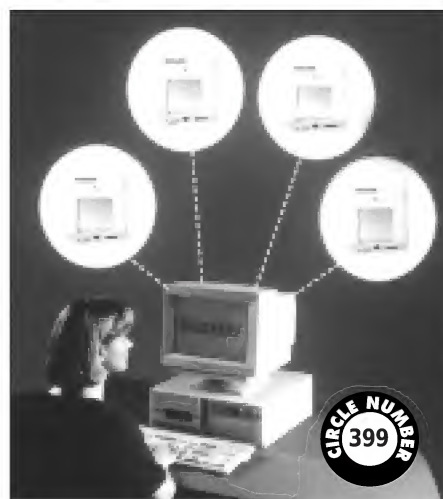
The ACSI 1540 is UL listed for fire-rated exit devices and is available for Corbin Russwin, Yale, Von Dauphin, Sargent, Precision, Arrow, American Device and Monarch exit devices. The ACSI 1540 is available in rim, mortise and vertical rod exit devices.

CIRCLE NUMBER
398

The new ACSI 1540 provides quiet egress when electrically dogged. Standard 24VDC operation - no special power supply required.

SA-NET's™ User-Friendly Access Control Communications Software

Secura Key is offering its SA-NET Access Control Communications Software. This user-friendly software allows the user to link an IBM-compatible computer to one or more ENTRACOMP® access controlled units (up to 64 units can be linked together in a network, using Secura Key Smart Switches). The software is compatible with MS-DOS, Windows 3.1, Windows 95 and dBase. Mouse control is included.



CIRCLE NUMBER
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SA-NET™ uploads transactions from all readers into a single database, allowing History Reports with sort and select criteria such as Time/Date, Cardholder Name, Card Number, Reader LD, Location and Transaction Type. Cardholder Reports include Card Number, Name and User Data.

Door King Introduces Gate Tracker™

DoorKing announces the introduction of the Gate Tracker feature on its line of intelligent swing,

slide, and barrier gate operators. The Gate Tracker reports operator statistics to a DoorKing PC programmable entry system, which then allows the user to download the gate operator reports to their PC for a detailed accounting of all gate operator activity.



The Gate Tracker will report how many times the operator has cycled, if an obstruction was encountered, if an attempt was made to force the gate open, if a loop has failed, if an input is shorted, and more! All gate Tracker transactions are time and date stamped allowing managers to create an audit trail of gate operator activity should the need occur.

Palmer Security Products Introduces Notebook Computer Safe

Palmer Security Products, which specializes in providing a wide-variety of safes and security cabinets, recently unveiled their new Notebook Computer Safe. Palmer's new Notebook Safe securely stores notebook computers and comes equipped with additional storage space for items such as modems,



batteries, disks or cables. The safes can be used to lock up notebook computers in offices, remote work stations, hotels, vehicles and other locations where theft is a concern.

Palmer's Notebook Safe is pry resistant and made of heavy gauge steel. Mounting holes are provided for permanent attachment or a cable can be used for affixing it to a permanent structure. The safes can also be attached to a mounting frame, allowing it to be locked down, yet easily removed for transport.

SDC 101AR Rim Exit Device Inhibits Unauthorized Exit or Shoplifting

The all new SDC 101AR Rim Exit Device utilizes a built-in epoxy-less electromagnetic locking mechanism to provide true fail-safe operation. Pushing the bar sounds an alarm and egress is delayed for 15 or 30 seconds inhibiting unauthorized egress or shoplifting.

This delayed egress exit device utilizes proven Exit Check logic to



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comply with Security and Fire Life Safety requirements for doors that are susceptible to employee theft, patient wandering and baby abduction. The

Devices," UBC "Special Locking Arrangements" and (BOCA "Special Locking Arrangements"[optional]).

SDC 101AR meets several building codes, such as the NFPA 101 "Special Locking Arrangements," UBC "Special Egress Control

ISOS-NT — Electronic Access Control



Control Monitor Systems has introduced the next generation of fully integrated, PC based access control systems operating in a Windows environment. Running under Windows 3.1, Windows 95 or Windows NT, ISOS-NT is the only access control system that utilizes a standard PC as a panel processor. This feature gives us networking flexibility no other access control system has.

Additionally you can use any reader technology and actually mix readers on the same panel. The ISOS-NT has been built with the same quality and designed with the same reliability Control Monitor Systems is known for. This system is easy to install, setup and operate and can be expanded from a simple 4 card readers installation to a multi user-multi/remote site networked system integrated with CCTV and badging.

Infinity Combines Telephone Entry With Card/Code Access

Recognized as the innovator of electronic directories, Sentex is pleased to introduce its latest version of the Infinity "S". This current model features a two line by sixteen character. extremely high contrast LCD electronic directory, which scrolls through the alphabetically listed names of the tenants. A very bright backlight, and an anti-glare



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package make the directory easily readable in direct sunlight and in total darkness.

Like the other members of the Infinity family of access control systems, the Infinity "S" integrates telephone access with card and keypad entry capability. These systems can be linked to control up to 32 doors via card or code access and can also perform elevator, HVAC, and lighting control. A 2400 baud internal modem is standard and is used for programming and event record retrieval.

Alarm Lock's PG21E Key Activated Door Alarm

Alarm Lock Systems, Inc., is proud to offer the Sirenlock™ PG21E key-activated door alarm for use on standard size and narrow stile doors. The PG21E is designed with Max-Flex(TM) terminals that allow for continuous power supply with the addition of an external power supply, and a Form C relay output for remote monitoring.



The PG21E also features multiple door monitoring, permitted with built-in or external reed switches, whose improved design protects against damage during installations. With the PG21E installed, any unauthorized use of the door will cause the alarm to sound and will activate the LED indicator. Only key-carrying

personnel have the ability to disable the alarm.

Rutherford's 15 Second Solution

Conford® electro-magnetic lock with up to 1500 lbs. holding force and audible alert built in. Connects to fire panel for immediate emergency release. Control egress from exterior doors while complying with NFPA-101, UL, MEA, and BOCA. Self-contained electronics. Requires no special modification of existing door hardware. Non-



binding electro-magnetic lock delays egress 15 seconds to alert security personnel. **TNL**

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in locking systems
for security, safety,
and control.***

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BUSINESS BRIEFS

MLANJ Plans April Show

The Master Locksmiths Association of New Jersey will hold its annual convention April 17-20 at the Garden State Convention Center in Somerset, N.J. In addition to the trade show featuring manufacturers and distributors from throughout the nation, there will be ALOA ACE certified classes. Other classes will include auto opening by Steve Young and masterkeying by Jerome Andrews. Rick Ohmit will present a free "Tricks of the Trade" clinic. Information about the event is available by writing the MLANJ at P.O. Box 2441, Morristown, N.J. 07962-2441, by calling (201) 267-8884, fax 201-538-2248, or by E-mail at btimmann@early.com.

MBA'S New Catalog

MBA (Mark Bates Associates) is pleased to offer Catalog No. 3, 1996/97. Many new products are offered in addition to the return of popular products offered in the past two catalogs. MBA is a factory authorized distributor of Mas-Hamilton Safe Locks and the new catalog also features products from Framon, Pro-Lok, Industries CL, Strong Arm, and a variety of small manufacturers making fine tools for the security industry. Let MBA be your distributor of safe locks, optics, and tools for the security technician. For information call: (606) 887-0496.

ACSI Modifications Now UL Listed for Yale 5400 Cylindrical Lock

Architectural Control Systems, Inc. (ACSI) Series 1500 Electric Lock Modification is now UL listed for the Yale 5400 Cylindrical

Lock. The lock is available in fail safe or fail secure control. Voltages available are 24VAC/DC and 12VAC/DC. For more information contact: Mark LeGrand, ACSI 10666 Gateway Blvd., St. Louis, MO 63132. (800) 753-5558 Fax (314) 432-2090

Escalera on the Internet

Escalera Inc., can now be found on the internet! The address is www.escalera.com. The site currently contains product pictures for the stair climbing hand trucks, a price list, and information on obtaining a FREE video! Be sure to visit this site for the world's best stair climbing hand trucks and see how you can save time, money and your back when moving safes.

R.J. Stuckel Number Change

Due to several area code number changes over the past year, the phone number for the R.J. Stuckel Co., listed in the NOVEMBER 1996 article titled: "Butt Hinge Mortising" has changed. The new phone number is (847) 593-7220.

American Security Distribution Names Joe Bucha, CML, to Head Detention Division

Joe Bucha, Certified Master Locksmith, has been named National Sales Manager of American Security Distribution's newly formed Detention Division. With 25 years as a locksmith, 19 of which are in the detention industry, Bucha brings extensive experience and national renown to the new division. Bucha will concentrate on consulting, training and product distribution.

Framon Website

Framon Manufacturing is proud to announce that our new Internet website is up and running. If you would like to check it out, point your web browser to: <http://www.framon.com>. You'll find information on our various key machines, tools and accessories. Also included in our web page is ordering information with links to our distributors and new depth and space information. Framon Manufacturing also features a free e-mail newsletter service. If you would like to receive our newsletter via e-mail, simply send a message to: framon@northland.lib.mi.us. Include your name and e-mail address.

A & B Safe Corporation Has Moved

A & B Safe Corporation has moved to 171 South Delsea Drive, Glassboro, NJ 08028. Frank and Nell Bernath have retired. Future plans for the company include an expanded product line and continuing updating of the current line. Inquiries can be made by phone at 800-253-1267 and fax at 609-863-1208.

Illinois Lock

Illinois Lock Company manufactures a wide range of Keylocks and key Switches for virtually any OEM application. Varying levels of security are available for both our mechanical and electrical lines. Our large engineering and R&D staff specialize in creating custom locks for specific applications. Call Toll Free 800-733-3907.

Mayflower's Keri Systems

Mayflower Sales is pleased to announce the availability of products from Keri Systems. Keri Systems manufacturers affordable, networkable access control systems that are easy to set up and install. With a "build-as-you-grow" flexibility, Keri's access control systems offer cost-effective security. Utilizing Keri's proximity readers and a variety of tags/ cards, you can build an access control system to suit today's requirements and tomorrow's. Mayflower can be contacted via Internet e-mail at pilgrim@trilogy.net and has an online catalog available via the world-wide-web at <http://www.trilogy.net/pilgrim.html>. Or call 718-622-8785.

Olympus Lock, Inc. Has Moved

Olympus Lock, Inc. recently moved into a new larger facility in Seattle, WA. Frank Martin, President, said



Olympus Lock, Inc.

the expanded headquarters will allow the company to carry significantly larger inventories. Olympus Lock manufactures and distributes a wide assortment of high quality patented rekeyable small/ large pin cabinet locks, interchangeable core cabinet locks and solid brass padlocks. The company can be reached at 2720 NE 115th Street, Seattle, WA 98125; phone 206-362-3290 or 800-525-0954; fax 206-362-3569. **TNL**

TECHNITIPS



**Helpful tips
from other locksmiths.**

by Jake
Jakubowski

These Prizes Awarded Each Month!

- All-Lock A-6200 Auto Service Kit
 - HPC Pistolpick
 - Sargent & Greenleaf 4400 series safe deposit lock
- Silca Keyblanks (100 Blanks)
 - Pro-Lok PK15 Professional Lock Pick Set
- Tech-Train Training Video
 - Sieveking Products EZ-Pull GM Wheel Puller
 - Major Mfg. Products
- The Sieveking Auto Key Guide

Send in your tips, and win!

How to enter

Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to: Jake Jakubowski, Technitips Editor, **The National Locksmith**, 1533 Burgundy Parkway, Streamwood, IL 60107 or send your tips via E-mail to the E-mail address posted in the box below. You may win cash or merchandise. At the end of the year, we choose winners for many major prizes. Wouldn't you like to be a prizewinner in 1997? Enter today!

Best tip of the month

If your tip is chosen as the best tip of the month, not only do you win the All-Lock A-6200 Auto Service Kit, but you also automatically qualify to win one of the many excellent year end prizes!

Every published tip wins

Yes, every tip published wins a prize. If your tip is printed, you'll win \$25 in Locksmith Bucks. You can use these bucks to purchase any books or merchandise from The National Locksmith. Plus, be ready for Jake's Grab Bag prizes! Remember, everyone wins. (Please remember to include your complete mailing address - we cannot mail prizes to P.O. Boxes.)

America Online: NATL LOCK

Use the above address if
you are on AOL.

Internet: natllock@aol.com

Use the Internet address
if you are not on AOL.

If you don't want a neat monthly prize, some locksmith bucks and a chance to qualify for one of the fantastic year-end prizes that you see, then you can stop reading right here. On the other hand, if you really want a shot at picking up a neat key machine or other dandy award, sit down and send me a tip, trick or an idea on how to do something a little easier, better, faster or more professionally. It's that easy!

If you have never sent in a tip, don't worry about whether it's "good enough" or maybe "too basic" or "too complicated," just write it down and send it in. If I can use it, I will. If it needs polishing, I'll do that. If it needs simplifying, I'll simplify it. If it seems too basic, remember that there are new locksmiths out there this month that are just starting their careers and might

not have encountered that exact problem just yet.

Now, what's your excuse? None? Good! Get to writing!

As you know, you can mail, E-mail or fax your tip to me, just make sure to include your name and physical address. Otherwise, I won't even consider printing the tip since I can't send the prize out if I did.

Also remember, the more information, drawings or photographs you provide with each tip the better.

So, folks, let's get crackin'! No tricks, no gimmicks, no gotchas. I don't care if you're a "part-time," full-time, independent, institutional or student locksmith. If and it's usable, I promise it will get printed and you'll get the goodies. No foolin' It's really that simple!

ALL LOCK WINNER Custom Escutcheon

A customer needed some cam locks for some very expensive wooden cabinets, and he wanted the locks to have keys "that can't be duplicated at the hardware store." I suggested that he use Fort (MFW1148BKA) cam locks which have a "GEM" or tubular key. The customer agreed and ordered twenty of them all keyed alike.

The existing locks that was on the cabinets were Chicago 1968 series desk locks. The Chicago cam lock has a nose diameter of 7/8" which meant the hole that was drilled into the cabinet door was 7/8" and would allow the Fort cam lock to slip through the existing hole. Plus, the Fort lock would easily spin since it could not be secured to the door even with an anchor washer.

To compound the problem, whoever built the cabinets installed some sort of round escutcheon under the face of the Chicago desk locks that was held on by a brad at the top and

bottom. When the escutcheon (1-1/2" in diameter) was removed, the wood underneath was unfinished. So, even by using the trim ring included in the Fort lock package, the unfinished portion of the door would be visible.

A Fort Anchor Plate (AP-1) would have worked well, but two of my suppliers were out of stock on that product. Now, I really thought I had a problem until I got into my "you never know when we can use it" bin. I came up with several old stainless steel push plates that had been taken off doors when we replaced the hardware.

I took these plates to the local machine shop and had them cut into 1-5/8" X 1-5/8" squares with a 1/2" hole drilled in the center of each. When I picked them up, I took them back to my shop and used my "Double D" tool to cut the proper 3/4" hole in them that would hold the Fort cam locks securely.

Now it was simply a matter of removing the desk locks from the doors and using two of my customized anchor plates (one on the inside and one on the outside) and installing the Fort Gem locks. The custom anchor

plates covered the unfinished area on the outside of the door nicely.

John Markevic
E-Mail

AERO LOCK WINNER Compensating for Warpage Problems

Before I get to my "real" tip, I just want to let everyone know that the stainless steel support rods on windshield wipers have enough "spring" in them to make excellent tension wrenches. And they're readily found at service stations and junk yards.

Now, for my problem: I have encountered several instances where a Yale (like the 112) or similar auxiliary lock, has bound because of a warped door or door frame. When the problem occurs it is necessary to either push in or push out on the door to allow the bolt on the lock to work freely. Since the customer that has this problem is normally reluctant — or unable — to replace the door or have the frame realigned, I have found it necessary to correct the misalignment.

The corrective measures I use depends on the cause of the problem

and the swing of the door. Most often, I have found that by using a shim made from Baltic Birch plywood obtained from the local building center, I can correct the problem (see Illustration 1). I use 1/8", 3/16" and 1/4" material to make my shims.

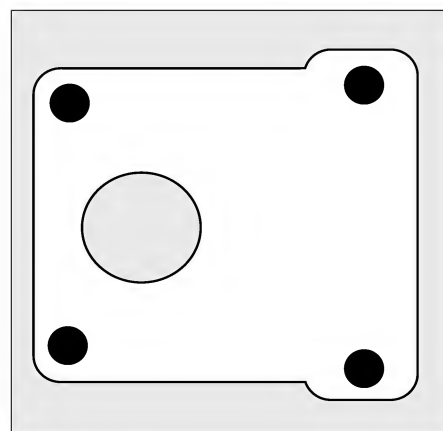


Illustration 1.

Once you have determined the necessary thickness of the shim, use the paper installation template that comes with these locks, or take the lock off the door and use the lock itself as a template. Simply cut the shim out

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of the proper stock with a jig saw, drill the appropriate holes (make sure to get the rim cylinder hole as accurate as possible) and reinstall the lock.

I usually drill slightly oversize holes to help align the lock case properly and to allow for through bolting of the lock to the door. If the problem is caused by the warping of the frame, I either shim the latch keeper (strike) outward, or mortise it a little farther into the frame.

Leo Koulogianes
Tennessee

HPC PISTOL PICK WINNER Making Pinning Jigs

I'm one of those people that does not like to throw anything away, and often use some of my salvaged stock to make or modify a tool that will help me do my job a little better. Here is a real simple tip where I used some old cylinders to make pinning jigs. I think this might help some of the newer people out there.

When I take broken or worn out locks off a door, and the lock has a cylinder like the one in Illustration 2, I remove the plug and cut the bottom of the cylinder out as shown. After filing or grinding down the rough edges, I now have a pinning jig that will securely hold a plug while I repin it. To test the pinning, I simply insert the proper key in the plug and if the plug turns freely, the plug is properly pinned.

I have found these jig is especially

helpful when I am master keying. Once I am satisfied that the plug is properly pinned, I then insert it in the lock. I think it beats pushing the plug in and out of the lock with a follower each time you want to check your pinning.

I have several brands of cylinders made up like this. If I need to "adjust" the diameter of one for any reason, I can do it by using a pair of curved nosed Vise-Grips to put a little pressure on the outside of the cylinder. The bible of the cylinder clamps neatly in my bench vise and gives me a secure base to work from.

Bob Davison
South Dakota

S & G WINNER Re-keying File Cabinet Locks

A township office had purchased a number of file cabinets at auction which had no keys. When I went to inspect the cabinets, I found that all the locks were manufactured by Taylor. One of the locks had a code of B105. The code called for using an Ilco 1141K blank which is not exactly a common blank or one that I stock. However, I did find that an Ilco 1092B (EZ # M-2) a common Master padlock blank, could be substituted with no problem. Cutting the M-2 to the code given, I had a key generated for the first lock in a very short time.

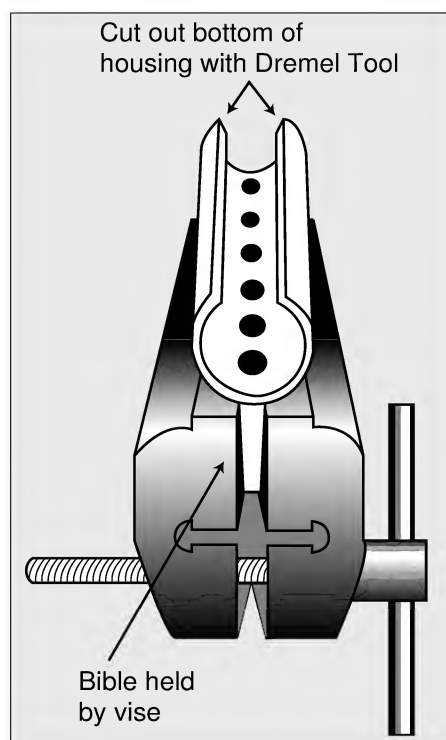


Illustration 2.



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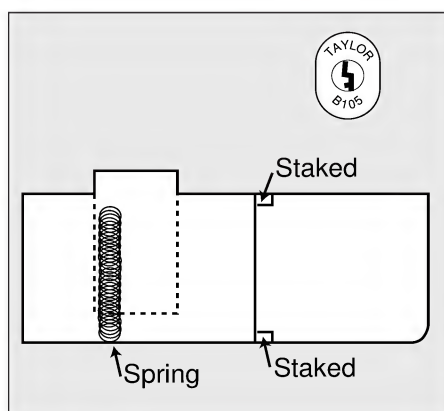


Illustration 3.

Unfortunately, the first cabinet was the only cabinet that had a code number on the lock. And, of course, the office wanted all the cabinets keyed alike. Before I suggested replacing all of the locks with new keyed alike locks, I decided to try the following:

Illustration 3, shows that by carefully prying up on the indicated swages, I was able to disassemble the lock and access the plug. Believe it or not, I found that the wafers were stamped 1-4 and that all four depths were present in each of the plugs! By simply rearranging the available

wafers, I was able to rekey all the existing locks alike.

Be aware however, when removing the core. There is a spring which activates the pop-up retainer. If you are not careful when taking the lock apart, this spring can fly around the shop or truck, never to be seen again.

Larry Kanzer
Pennsylvania

SILCA KEY BLANKS WINNER Mazda Opening and Repair

Here are two Mazda tricks that I hope can help another locksmith out of a jam if they encounter the same problems that I did.

First, after opening a Mazda 626, I found that the door handle was broken. I tried pushing the door handle rod down but I couldn't get the door open. Then I used a downward hook tool and bent the tip so that it was at a 90 degree angle to the shaft (see Illustration 4). After hooking the door handle rod, I slid my modified tool down the rod until I touched the door

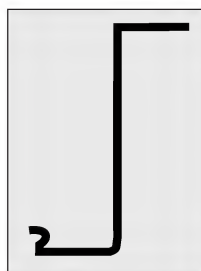


Illustration 4.

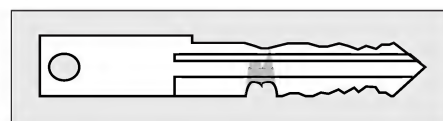


Illustration 5.

lock. A quick downward push and the door was open!

The other tip concerns a repair to a Mazda ignition lock using an ASP C-20-208 repair kit. After trying for better than an hour to slide the plug back into the housing with the wafers and retainer in place, I decided there had to be an easier way.

I duplicated the key and modified it as shown in Illustration 5. By cutting the sides off the bow and then filing a notch in the blade of the key, as indicated, and then thinning the keyblank in the area of the plug retainer I was able to insert the modified key into the plug and the plug into the housing.

The modified key held the wafers and the retainer in place and allowed the plug to slide easily into the housing. After removing the modified key and reassembling the lock, I found everything worked perfectly.

Richard Crecelius
Nebraska

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PRO LOCK WINNER
Shimming American Padlocks

I have found a way to quickly shim American Padlock cylinders. I work primarily with the 5200 series, and like many others have had problems picking or shimming the cylinders for these locks. What I've done is made a set of "shim keys." Using a code machine, I cut the tip of 10 AM 3 blanks with one depth on each tip. When I find a lock that absolutely refused to pick and drilling the retainer comes to mind, I go for it. After drilling the retainer and dropping the cylinder, I remove the retaining clip from the back of the plug and get a fresh shim. I insert that shim until it is stopped by the pin in the last chamber.

Now, I use my first shim key which is a 0. If it does not work, I use the next shim key which is a "1" and so on until that chamber is shimmed. As I progress through the shimming of the cylinder, I write down the depths since I am decoding the cylinder at the same time I am shimming it open.

I have taken this idea one step further by inscribing spacing marks of the side of the key blank so that not only do I have the depth, but the space position as well.

Jim Elkins
Kuwait

TECH TRAIN VIDEO WINNER
Fondue Opening on a Maxima

I recently had to open a Nissan Maxima which I was unfamiliar with. I first tried picking the lock without success. My car opening book called for using an under the window tool which I don't like to use unless there is no other way.

With a Toyota Camry, and an Infiniti Q45 that I had recently opened in mind, I decided to look at the back door handle on the Maxima to see if I could access the linkage. I found a guard behind the rear hole. However, there was no guard over the front opening.

Using a flashlight, I looked high into the door cavity from the front hole and could see two linkages. A quick probe with a fondue fork showed the lower linkage to be the door handle and the upper linkage was the lock linkage. These linkages are much higher in the door than on the Toyota Camry or the Infiniti Q45 and I really had to get down low to see them. However, I could easily reach the upper linkage with my fondue

fork, hooked the linkage, slipped it forward and unlocked the door.

As most everyone knows, the fondue fork trick is the easiest way to open the pre-92-1/2 Camry and the Q45 Infiniti. Now I know that it works just as well on the Maxima. Just use the forward opening of the handle, rather than the rear.

Chuck Donnelly
New York

**SIEVEKING E-Z PULL GM WHEEL
PULLER WINNER**
Alternative Camry Opening

With a large number of colleges in my area, I get to open a lot of locked

cars. However, the one vehicle that has presented me with the most opening problems has been the '95 and '96 Camry.

Following the directions of the opening set that I use, I have always tried to manipulate the bell crank on the inside of the interior panel. Without going into details, I broke my Camry tool.

While checking out the rear door, I decided to see if I could insert my "Beretta" tool under the window. A little manipulation allowed me to get the under-the-window tool into the



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rear compartment and activate the manual lock release button.

Since then, I have used this method on all the 1995 and 1996 Camrys that I have been called to open. It is still a tight fit getting through the weather stripping, and I do have to be careful not to bind the glass and possibly break it, but it does work!

Jeffery M. Hula
Virginia

[EDITOR'S NOTE: Both the preceding tips bear out an old adage about there being more than one way to skin a cat. And, when it comes to opening locked vehicles there are usually viable alternatives to the suggested methods included in most opening kits manufactured. The opening instructions in the kits that you buy are considered by the manufacturer to be the easiest and most practical way to open a specific vehicle with those tools. In my opinion, the key to using a "viable", non-damaging alternative opening method is a good understanding of the types of vehicles you are working on and a careful examination of the particular vehicle you need to open.]

MAJOR MANUFACTURING WINNER **Jig Drilling Without Scarring the Door**

One of the serious drawbacks that I have found to drilling metal and wood doors for deadbolt or knobset preparation is that when you remove the drilling jig, you often find that the jig has scarred the paint or finish of the door. Frequently, the paint has been blistered from the heat generated. And, of course, there is the damage caused by the jig moving, even slightly, during the prep.

Sometime ago, I began using the foam wrapping material that comes with the deadbolts under my jig. By wrapping the door edge in the area I'm going to prep with the foam, and then setting my jig, I find that when I have cut my holes and removed the jig and the foam wrap, that the finish on the door is unscathed and not discolored!

If you are not already doing this, you should try it. It really works well.

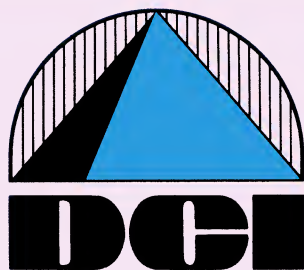
Don Stowe
Kansas

[Editor's Note: To expand on Don's tip just a little, I have used cardboard, the boxes that the locksets have come in,

foam sheets and brown wrapping paper to prevent the scarring and blistering that Don speaks of. Virtually any material that you place between your drilling jig and the surface of the door will help you come away from the job with fewer problems. And ... the neat thing is that most of the "shield" material that you need is readily available and free! Speaking of deadbolt and knobset installation: Major Manufacturing's newest installation jig (The Hit-44 "Drillmaster") should be available from your favorite supplier by now. The Drillmaster's jaws are already soft padded to prevent damage to the door's surface and to provide a positive grip on the door which eliminates "slipping." Yeah!]

SIEVEKING KEYBLANK REFERENCE WINNER **Drilling Lever Through Bolt Holes**

When we have to replace a regular knobset with a lever lock that requires the two small mounting holes for the through bolts, we have found it is easier to drill the holes in the proper position if you first mount the lock minus the levers and the spring case. Just use the holes in the plates that hold the lock on the door as a template.



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This procedure places the holes exactly where we need them and eliminates the problems associated with trying to mark and drill the holes freehand only to have the bit jump into the existing 2-1/8" prep and make a mess of things.

William Turner
South Carolina

[Editor's Note: By using the mounting plates of the leverset as a template as William has suggested is a workable means of accomplishing the installation. However, there is a possibility of damaging the mounting plates, the door or your hand (take my word for it)].

JAKE'S GRAB BAG PRIZE WINNERS Opening Bicycle/ Motorcycle Locks

I have found that on several brands of the "U" shaped bicycle/motorcycle locks with the tubular "ACE" style cylinders, can be opened by slicing and peeling back the rubber coating to reveal the cylinder retaining pin.

Simply drill out or remove the retaining pin and use an uncut tubular key to rotate the entire cylinder, thus unlocking the lock. If necessary, the cylinder can now be decoded to make a key or recoded to a new key and replaced using a new retainer. The rubber coating can be Super Glued in place, making a neat repair.

I think that it beats grinding or otherwise ruining the lock.

Jack Tom
New Jersey

Milk Jug Shimming

Here's a new twist on the "old" credit card trick. Cut an 8" X 8" square out of an empty milk jug or a two liter soft drink bottle. Now use the "square" just like the old credit card to shim or manipulate locks by pushing back the latch.

I'm surprised how often I find locks that have been improperly installed on the doors or the frame has warped which allows me to bypass the lock. My "square pick" won't work every time, but it is cheap enough and easy enough to make that it makes sense to keep one in your tool box.

Pete Kuchan
Washington

Grease Will Keep It

When you are trying to install Schlage deadbolts that have the short tailpieces and the tailpieces keep falling out before you can install the lock, use a small dab of grease in each

retainer cavity. The grease will hold the tailpieces while you insert them in through the latch.

I carry a small tube of grease in my tool box just for this reason.

Glenn Starling
Florida

Soften the Sell

I offer "FREE" security surveys to homeowners in my area. While making the survey, I carry a small can of WD-40 with me and a couple of clean rags. I use the WD-40 to lubricate stuck latches and squeaky hinges and the rags to wipe up any

over-spray or runs.

While doing this I have the opportunity to lead the customer into a discussion about the age and condition of their locks or the security of their windows, etc. And, they are impressed by my "neat" work habits.

Although I would sell a lot of deadbolts without going into the lube bit, I find that I sell a lot of auxiliary items such as locking sash locks, heavy duty strikes, etc. by "spreading a little grease" so to speak.

James Totloff
E-Mail

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The **WANTED** Side

Internal Problems



by
**Sara
Probasco**

"Where's that letter from Dennis about the IRS agents who got locked inside a business they were seizing?" I asked Don.

"Wherever you put it, I would guess," Don answered unsympathetically.

Ever since Christmas, my office had been a mess. With two branches of our family tree joyously filling our home at separate times during the holidays, nothing was where it should be. I knew I might be months getting things back to normal.

As I pawed through my "elsewhere" box in search of the information, I couldn't help remembering the young woman who had initiated my use of such a filing technique. Many years ago, Don had hired her to help out with some office work. She was young and inexperienced in office procedures, and the nature of our business didn't help matters. Besides, Don and I are both pack-rats who accumulate clippings difficult to categorize.

"I don't know where to file these," the young woman said plaintively one afternoon, indicating a stack of assorted papers.

"Just look through the file folders and find where they should go," Don answered a bit impatiently.

A few minutes passed before she came back into his office. "There are still a few I can't find folders for," she admitted.

"Make new files, if you need to, but file them somewhere," Don responded.

It was weeks after she left us before we discovered what she had done. In the bottom file drawer was wedged a bulging file labeled "Somewhere." In it was everything she had been unable to justify filing in our established system.

In recent years, I have developed my own version of her system. Any time I have clippings, letters, or other "fileable" materials that I don't have time to put away properly or don't quite know where to put, I drop them in a large box I call my "elsewhere" box. It may take a while to find things there, but I at least know where to look when something's out of place.

"Aha!" I said, holding up the page I'd been searching for.

Dennis Copeland's letter told of an unusual call he had recently received. Summoned to "change the locks" on a local business that was being locked up by the IRS, he found it was the IRS agents who were locked up, rather than the other way around — an interesting twist, I thought.

Although Copeland's personal, "inside" account of the happenings differed slightly from the two versions that later appeared in the Brownsville (Texas) Herald, this is a composite of the happenings:

In announcing to management and employees that the business was being shut down, IRS agents "ordered the building evacuated during the seizure." On his way out, the owner's son (a minor) closed the door and secured the double-cylinder deadbolt, locking the IRS agents inside the offices with no key. An irate agent had telephoned Around Town Locksmith to get them out.

Copeland responded promptly and had the lock drilled out and the agents released in a matter of minutes. He then took steps to secure the building, at their request. IRS paid for the call.

According to the newspaper's November 21 issue, the police had no suspects and were not investigating. Further, the IRS agents apparently considered the incident more a prank than anything more serious. The Herald's staff writer stated "The (IRS) agents did not want to file charges on the alleged prankster. Therefore, no investigation was conducted...."



Sounds like the happily-ever-after ending to a humorous little incident, doesn't it?

Wrong!

What a difference a day makes!

"IRS LOCKUP STUNT LANDS OWNER IN JAIL," was the Herald's headline the following day.

After being locked inside the building by the youngster, this latter article stated, the IRS agents "pounded on the glass door and pointed to the lock," (presumably in an attempt to get the young man to unlock the door for them).

The young man suggested the agents call a locksmith. Then he left.

According to this article, the owner, who turns out to be the mother of the "alleged prankster" (The plot thickens!) had now been charged with "impeding, intimidating and interfering with IRS agents" Her bond had been set at \$25,000.

The fact that the woman was not on the premises when the IRS seizure took place and was, therefore, not personally involved, didn't seem to matter to anyone. The IRS agents claimed the woman "ordered" her eighteen-year-old son to lock the door when he called her on the telephone from the seized business location.

Have you ever noticed how IRS agents have very limited senses of humor, especially when the "joke" seems to be on them? We once had an ongoing battle with IRS for twelve years over a mistake in their computers regarding our account — finally necessitating our congressman intervening in our behalf before it was cleared up — and I don't remember hearing even a snicker from any of the numerous agents we dealt with during that entire time!

Copeland apparently got some good publicity from the incident, especially from the two days of TV news coverage. "Oh yeah!" many folks commented to him, "You're the guy who was on the news!"

Asked to comment on his opinions and observations on the matter, Copeland had little to add.

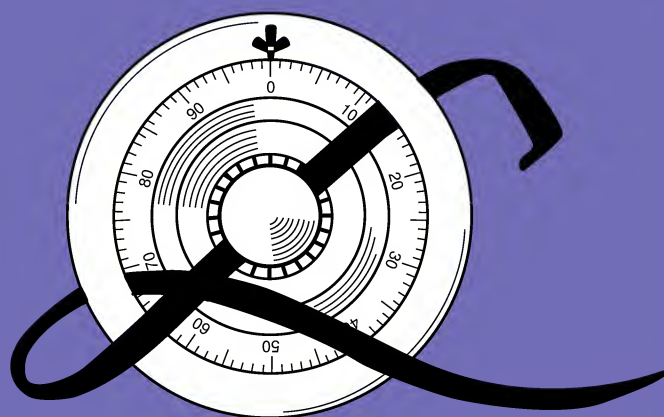
"I just did my job and didn't ask too many questions," he said with a twinkle in his eye.

Smart fellow.



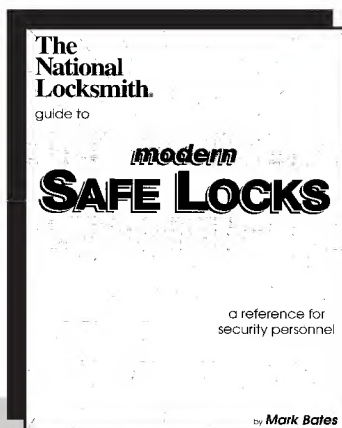
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This material was excerpted from the Mark Bates book titled Modern Safe Locks. The book covers combination operating and changing procedures for virtually every combination lock both mechanical and electronic, that you will encounter on a daily basis. Modern Safe Locks is available for purchase through **The National Locksmith**.

Mosler

MODERN SAFE LOCKS TECH BULLETIN

MODEL:	KCB 104 (1931-1956)
DESCRIPTION:	Four wheel, key changeable combination safe lock. Dial is numbered 0 to 99 clockwise. Regular change.
RATINGS:	Unknown.
FACTORY COMBINATION:	Unknown.
OPENING PROCEDURES:	<p>WHEN SET TO A 4 NUMBER COMBINATION...</p> <ul style="list-style-type: none"> a. 5XL to 10 b. 4XR to 20 c. 3XL to 30 d. 2XR to 40 e. 1XL to stop (78)
TO LOCK:	Turn dial right 5 times.
FORBIDDEN ZONE:	Unknown
CHANGING PROCEDURE:	<p>WITH THE SAFE DOOR OPEN...</p> <ul style="list-style-type: none"> a. Dial the existing combination to the changing index (steps a through d under "Opening Procedures") b. Insert change key and turn it left 1/4 turn. c. Turn change key right 1/4 turn and remove it. d. Test combination at opening index (steps a through e under "Opening Procedures").
TOOLS NEEDED:	Mosler change key No. 81186.
NOTES:	One of seemingly endless models of mid-century Mosler locks that the 120 series was made to replace.

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Being Successful In A Competitive Arena



by Jeffrey Rosen

PURPOSE OF COMPETING

Competing for business is necessary because the environment of business "IS" competitive. If you do not seek business, you will be out of it. The benefits of competing are increased gross business, increased market share, and if done well, EXPANSION of the market itself.

DEFINING THE COMPETITORS

The primary competitor for the locksmith is the mass merchandiser. These are some examples; Home Depot, Home Quarters, Lowes, Eagle Hardware, Hugh M Woods, Sutherland Lumber, K-Mart, Wal-Mart, King Soopers etc. They want to take away your livelihood. They are considered "category killers" by the industries. They have decreased the demand for key duplication, and have made the public think of it as a do-it-yourself sport.

Sure, we can argue that they make LOTS of miscuts, but the point is, they make lots of KEYS! In a less suspicious world, locksmiths could share a common yellow page ad featuring the advantages of patronizing a security expert. This ad could be placed under "Hardware Stores," "Doors and Door Services," "Safes" and "Locksmiths." You might say "NO WAY," but it works well for ACE, True Value, and others.

Co-op advertising is effective. Those things that all locksmiths echo make the body copy of the ad, along with a mission statement, along with individual cubes at the bottom of the ad with a map of each locksmiths location, and bold phone numbers. The result would be a professionalism unmatched, and a decrease in yellow page cost for each.

The phone book people hate this concept, they love making us compete for the biggest most multicolored ad. It would also require that the co-op ad be billed to a single responsible party. Creating a buying group, or association of participating locksmiths would be required (much like a local association) but geared toward public service releases, marketing tools, and even group purchasing of merchandise. Remember, other locksmiths are really NOT your competition.

CHOOSE YOUR MEDIA

Run coupons and promotions not to give away the farm, but to show the public that it is ultimately a bargain to come to you for keys and locks first time around, not just when the lumberyard screws up, or the hardware store does not carry that model. The bulk of the general public does not know you exist, unless you are in a very small community. Remember, you want to be a household word. I get back about 100 coupons a month, and only a portion

of my advertising has a coupon in it. If you use print media, remember, one shot ads only work well for going out of business sell-offs. If you print it you have got to have it appear like clockwork. Repetition, redundancy and finally, repetition.

MAKING IT FUN

Traditional marketing is BORING. It is difficult to enlist others, other than to threaten their jobs to upsell, or parrot a promotion to every customer that walks in. This creates a mindlessness that clients pick up upon. To make a marketing strategy work, enthusiasm is critical. Have you ever tried humor to sell products? I had a competitor in New Hampshire, (my former home) who only had a tiny yellow page ad - the smallest display available, about 1/16 page - of an overweight individual schlepping around a padlock behind him. I always thought it looked tacky and unprofessional. Maybe it was. Maybe it was effective!

I spent time thinking about that individual with the padlock, maybe many clients did too! My Colorado store is in a very cycling town of Boulder. My showroom/servicenter is in the industrial, older business side of town, two locksmiths away from the University. Despite this, I have moved about 2 gross of Kryptonite locks this year, thanks to my cartoon Dudes, placed in a humor tabloid (see illustration 1).

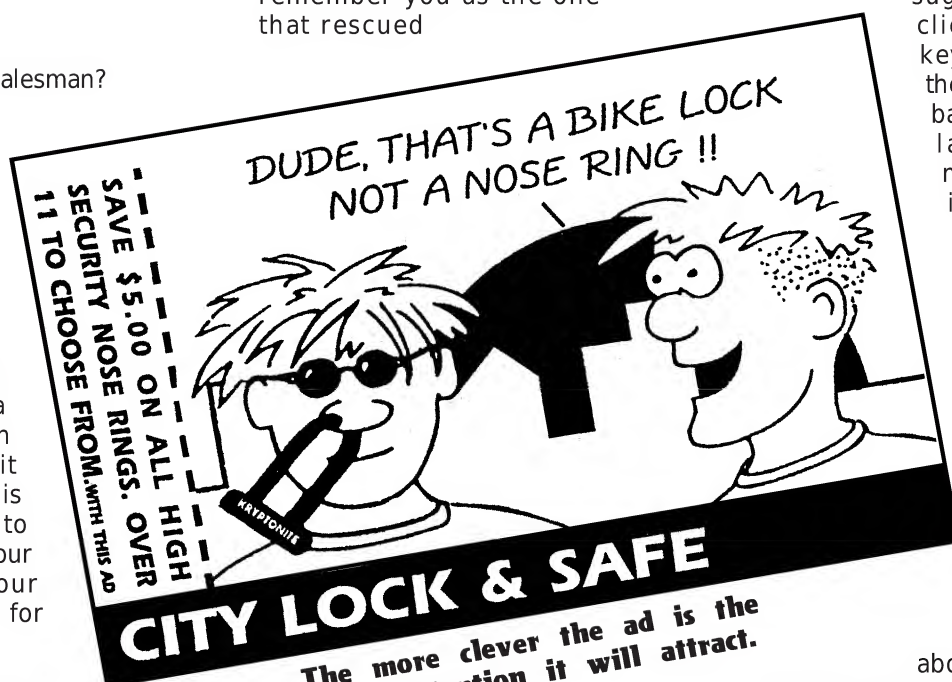
THE UNKNOWN SALESMAN

Who is your best salesman?

It is more than likely to be NO ONE on your payroll! Your existing clients have the most pull with prospects (friends). These clients are not on your mailing lists, so they tend to be a bonus for you that can result in double digit increases of sales. This does not mean not to advertise, but tie-in your promotions with your client base, and ask for referrals.

Give BOXES of your business cards to real estate agents. I sell Realtor lock boxes at a good price, creating a very impressive impact on Realtors (some of the nicest, yet penny-pinchiest folk around).

The folks you unlock autos for remember you as the one that rescued



them, be sure they get your card, and even a prepared handout specifically to garner more business from them. They will tell EVERYONE how you helped them.

Another individual suggested encrypting clients' car and house key codes, and placing these blind codes on the back of business card, laminating it, and making it a permanent item in clients' wallet. I never thought of that before! Great idea, and I would have given credit by name, but I don't remember where I saw it!

I truly feel strong about the need to educate the public, deal with the licensing issue, and stop the bitching

about things we can do something about!

Jeffrey Rosen is proprietor of City Lock in Boulder, Colorado. He can be reached at 303-444-4407, faxed at 303-442-8380 or e-mailed at Supra39@earthlink.com. **TNI**

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How Good of a Locksmith Are You?

by Tony Blass



The following questions were found on the editing room floor of the United State Locksmith Licensing Exam.

1. How would you fit a key up to a 1931 Stutze Bearcat?

a.) Look it up in the Michael Hyde's new book, "Jobs from the devil you should never take."

b.) Jam a double-sided Ford blank into the ignition and turn real hard with some vice-grips.

c.) Find a blank that goes into the ignition keyway, pretend to turn it while making engine starting noises with your lips and demand to be paid in cash immediately.

2. You have just finished changing the combination on a bank vault. It works fine until you close the door, and then it won't open no matter what you do. You should:

a.) Ask to be excused for a moment, then go out to your van and drive to another state.

b.) Tell the bank manager that you can't get it open for him, but you will be willing to knock 10% off the cost of the combination change.

c.) Point out to the manager that this is an excellence way to cut back on employee embezzlement. Suggest that he might try calling the psychic friends hotline for some possible suggestions on how to open it.

3. You drive to a car lockout, but the customer has opened the car himself and refuses to pay the service call. You should:

a.) Seize one of his smaller children, and hand him your card.

b.) Plead with the customer to please pay you, because your only possession in the whole world is a rusty old .45

caliber pistol in your pocket.

c.) Grab the keys from the customer's hand and quickly swallow them. Then tell him, "Money means nothing to me. You hear me, NOTHING." Then laugh loudly all the way back to your van.

4. You are installing a Mitey-Lok in a sliding glass door. You accidentally hit the glass with your drill and small hairline cracks begin extending throughout the door. You should:

a.) Yell out loudly, "Hey who threw that rock?"

b.) State with authority that they should have put these cracks in at the factory so that people know there is a glass door there and don't walk through it.

c.) Apologize, and tell the customer you'll take full responsibility and that you will be happy to pay for the damage out of your child's liver transplant savings.

5. You are changing the locks on a woman's house when her jealous ex-boyfriend approaches brandishing a large handgun. You look him straight in the eye and tell him:

a.) "Careful buddy, I've got a plug spinner here and I'm not afraid to use it."

b.) "Oh, is it 2:00 already. I have to get going to my gay liberation meeting."

c.) "I'm under doctor's orders not to receive any gunshot wounds, because I have a tendency to bleed internally."

6. You arrive at the customer's house to rekey his locks. He hands you a bag with

approximately 800 random parts in it, some of which look like they came off an old Buick Riviera and he says, "I helped you by taking the locks apart for you." You should respond:

a.) Thanks for your help. I should be able to make a pretty close replica of the Eiffel Tower out of these parts.

b.) Great. Do you know the address of the nearest scrap metal dealer in your neighborhood. Please step this way, I'll show you my selection of new locks.

c.) If Alexander Graham Bell had help like this, then Morse code wouldn't be such a lost art.

7. You've just spent 4 hours installing a Baldwin Mortise lock in a brand new door. As you are finishing up the customer approaches and says, "You know, that's a little too low on the door. Would you mind moving it up about six inches, I think that would look better. You should:

a.) Ask her if she'd prefer pulling all your toenails out with a pair of pliers, because that would be a little less painful than moving the lock.

b.) Drop to your knees, kiss her feet, and say, "Oh please have mercy on me, I'm just a humble locksmith with a wife and kids."

c.) Say to the customer, "I'm sorry, what did you say? I seem to have lost my hearing from all that drilling. You do carry workman's compensation don't you?"

8. You go to a late night lockout job. The customer is wearing a ski mask, carrying an empty gunnysack, and glancing around nervously. You should:



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a.) Hurry up and open the lock for him to insure that he will be a steady customer.

b.) Open the door for him, write out the bill on a competitor's invoice, get paid in cash, then make an anonymous call to the police on your cell phone as you are driving away.

c.) Ask him if he might have a nice silver candelabra to give you to cover the service call.

9. A customer calls up and says that the lock you rekeyed on his warehouse door several months back just doesn't seem to work as well as it did before you rekeyed it, and he wants to know if you can come out and fix it for free. When you get there, you find that someone has backed a truck into the lock, and what used to be a knob, now looks more like a metal Frisbee. You should say to the customer:

a.) Oh, I'm sorry. I must have inadvertently smashed it 200 times with my hammer. Please let me replace it, no charge.

b.) Gee, when I put the new tumblers in the lock, they must have imploded and sucked the whole face of the lock into the door.

c.) You haven't received a ticking package from a Ted Kazinski recently, have you?

10. The customer calls you and says, "I'm locked out of my house, but it's just a SIMPLE little lock so you shouldn't have ANY trouble opening it." You respond:

a.) Great. Then I'll just tell you how to open it and you can send me a check.

b.) You have just spoken the locksmith curse of doom. You are now destined to live out the rest of your days in a tent on your front lawn.

c.) It's just a simple little lock huh? Isn't that what they told Harry Houdini before they lowered his cage into the ocean for the last time.

11. A customer calls, needing keys for his \$350,000 Ferrari Testarosa, collectors edition. He asks you, condescendingly, whether you have ever worked

on one the these before.

You respond:

a.) I can't tell you how many times I've worked on those.

b.) Not only have I worked on them, but I bought one for each of my kids, so they wouldn't wreck my good car.

c.) Those are a piece of cake. It's the same lock they put on the Yugo.

d.) Oh sure. I've probably taken apart Ferrari ignitions about nine times. In fact, I almost put one back together once.

12. You have just finished putting a Baldwin mortise lock back together and the customer points out that there are still several parts left on the workbench. You tell the customer

a.) You're lucky I got those parts out in time. They were causing so much friction, they were creating a fire hazard.

b.) Oh, those parts are from a small UFO that crash-landed in my tool box earlier today.

c.) All those parts are against the state building code. If I were to put them back, they would revoke my State License.

Test Score

Take the number of times you said to yourself during the test, "What the heck is wrong with the guy who wrote this test?" Subtract the number of times you have been reported to the local Better Business Bureau. Multiply by your mother-in-law's age in dog years.

If you scored:

0-10 Go back to locksmithing school.

10-20 You'd make a wonderful social director on a cruise ship.

20-30 You have no ethics whatsoever. Your shop probably shows a pretty good profit.

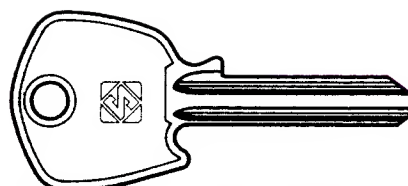
30-40 Top score. Excellent. You are probably on parole and have tattoos covering both arms, wear suspenders and combat boots and love what you do. **TNL**





KEY CODES

Jaguar Series FK & FR2001-3040



Key
Profile

Key Blanks

Silca
FR series DM1R
Taylor
FK series F76N
FR series F81E

Spacing

1.) .158
2.) .296
3.) .434
4.) .572
5.) .710

No. of Cuts: 5

Cut to Cut Spacing: .138

HPC 1200 CM

Code Card - XF40
Cutter - CW-1011
Stop - Shoulder
Jaw - A

Framon

Cut Start - .158
Cut to Cut - .138
Spacing Block - #2

Depths

0.) .266
1.) .246
2.) .226
3.) .206
4.) .186
5.) .166

NOTE: The FK series key blank
broaching is the reverse of the FR.

2001	40 53534	79 11354
01 53541	41 11352	80 11510
02 55101	42 13314	81 11514
03 55123	43 15112	82 11532
04 55141	44 15330	83 11554
05 55303	45 15512	84 13114
06 55321	46 31134	85 13152
07 55325	47 31152	86 13354
08 53343	48 31314	87 13510
09 53523	49 31510	88 13514
10 55103	50 33114	89 13530
11 55121	2051	90 13534
12 55125	51 33130	91 13552
13 55143	52 35132	92 15114
14 55145	53 35154	93 15130
15 55301	54 35310	94 15152
16 55305	55 35530	95 15310
17 55323	56 51130	96 15314
18 53525	57 51152	97 15332
19 55341	58 51310	98 15354
20 13154	59 51314	99 15510
21 13532	60 51332	2100 15154
22 15134	61 51352	2101
23 31514	62 51510	01 15532
24 31532	63 51514	02 31130
25 33154	64 51552	03 31154
26 35112	65 53112	04 31310
27 35130	66 53130	05 31334
28 35134	67 53134	06 31352
29 35152	68 53152	07 31512
30 35314	69 53312	08 31530
31 35332	70 53352	09 31534
32 35512	71 53512	10 31554
33 51134	72 53530	11 33134
34 51354	73 53552	12 33152
35 51530	74 55112	13 35110
36 53534	75 55130	14 35114
37 55330	76 55134	15 35312
38 31552	77 55152	16 35330
39 51532	78 55312	17 35352



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Jaguar Series FK & FR2001-3040

18 35510	53 15154	89 04520	24 42304	59 20302	95 44304	70 51241	46 35401	21 20313	97 02533
19 35514	54 15312	90 20104	25 42540	60 20342	96 44540	71 53041	47 51021	22 20355	98 04131
20 35532	55 15334	91 20304	26 44122	61 22144	97 11025	72 53223	48 51201	23 22315	99 04311
21 51132	56 15352	92 20344	27 44320	62 22524	98 11241	73 53403	49 51243	24 22513	2600 04253
22 51154	57 15530	93 22302	28 44542	63 24120	99 11423	74 55203	50 51425	25 22553	2601
23 51312	58 15534	94 22540	29 02104	64 24302	2300 13023	75 55245	2451	26 24151	01 04533
24 51330	59 31330	95 24122	30 02304	65 24524	2301	76 55441	51 53021	27 24331	02 20131
25 51334	60 31354	96 24304	31 02344	66 40120	01 13203	77 11023	52 53221	28 24513	03 20311
26 51512	61 02124	97 24540	32 02544	67 40302	02 13403	78 11225	53 53401	29 24553	04 20353
27 51554	62 02320	98 40122	33 04140	68 40342	03 13445	79 11421	54 55201	30 40151	05 22155
28 53110	63 02520	99 40304	34 04322	69 42124	04 15241	80 13021	55 55243	31 40331	06 22511
29 53114	64 04102	2200 40344	35 04522	70 42320	05 15423	81 13201	56 55425	32 42115	07 22551
30 53132	65 04142	2201	36 20124	71 42542	06 31023	82 13401	57 02115	33 42155	08 24135
31 53154	66 04324	01 42140	37 20320	72 44124	07 31203	83 13443	58 02155	34 42351	09 24315
32 53314	67 04524	02 42340	38 22104	73 44340	08 31403	84 15225	59 02351	35 42531	10 24511
33 53510	68 20140	03 42544	39 22304	74 02140	09 31445	85 15421	60 02531	36 44115	11 24551
34 53514	69 20322	04 44140	40 22542	75 02322	10 33045	86 31021	61 04115	37 44155	12 40135
35 53532	70 22124	05 44520	41 24124	76 02522	11 33401	87 31201	62 04155	38 44511	13 40315
36 55110	71 22320	06 02142	42 24320	77 04104	12 35203	88 31401	63 04351	39 02113	14 42113
37 55114	72 22544	07 02324	43 24542	78 04044	13 35245	89 31443	64 04531	40 02153	15 42153
38 55132	73 24140	08 02524	44 40124	79 04340	14 35441	90 33043	65 20114	41 02335	16 42335
39 55154	74 24340	09 04120	45 40320	80 04540	15 51045	91 33245	66 20155	42 02515	17 42515
40 55310	75 24544	10 04302	46 42102	81 20142	16 51241	92 35201	67 20351	43 04113	18 44113
41 55314	76 40140	11 04342	47 42142	82 20324	17 51423	93 35243	68 22153	44 04153	19 44153
42 55352	77 40322	12 04542	48 42520	83 22140	18 53023	94 35525	69 22355	45 04335	20 44351
43 11314	78 42104	13 20144	49 44102	84 22340	19 53203	95 51043	70 22535	46 04515	21 01042
44 11512	79 42144	14 20340	50 44142	85 24102	20 53245	96 51225	71 24133	47 20113	22 01244
45 11530	80 42522	15 22142	2251	86 24142	21 53441	97 51421	72 24313	48 20153	23 01440
46 11534	81 44104	16 22520	51 44522	87 24520	22 55241	98 53021	73 24355	49 20335	24 03212
47 11552	82 44302	17 24104	52 02144	88 40102	23 55423	99 53201	74 24535	50 22151	25 03244
48 13134	83 44524	18 24144	53 02340	89 40142	24 11203	2400 53243	75 40133	2551	26 03440
49 13352	84 02302	19 24522	54 02540	90 40324	25 11403	2401	76 40313	51 22353	27 21204
50 13512	85 02342	20 40104	55 04122	91 42120	26 11445	01 53425	77 40355	52 22533	28 21404
2151	86 02542	21 40144	56 04304	92 42302	27 13045	02 55225	78 42151	53 24131	29 23020
51 13554	87 04124	22 40340	57 04344	93 42524	28 13245	03 55421	79 42331	54 24311	30 23202
52 15132	88 04320	23 42122	58 04544	94 44120	29 13441	04 11045	80 42513	55 24353	31 23420
					30 15223	05 11501	81 42553	56 24533	32 25240
					31 15403	06 11443	82 44151	57 40131	33 25422
					32 15445	07 13043	83 44331	58 40311	34 41024
					33 31045	08 13243	84 44551	59 40353	35 41220
					34 31245	09 13425	85 02151	60 42135	36 41404
					35 31441	10 15221	86 02331	61 42315	37 43020
					36 33041	11 15401	87 02513	62 42511	38 43202
					37 33241	12 15443	88 02553	63 42551	39 43420
					38 33441	13 31043	89 04151	64 44135	40 45240
					39 35241	14 31243	90 04331	65 44315	41 45422
					40 35423	15 31425	91 04513	66 44531	42 41240
					41 51041	16 33025	92 04553	67 02135	43 01422
					42 51223	17 33225	93 20151	68 02315	44 03042
					43 51403	18 33425	94 20331	69 02511	45 03240
					44 51445	19 35225	95 22135	70 02551	46 03422
					45 53045	20 35421	96 22351	71 04135	47 21042
					46 53241	21 51025	97 22531	72 04315	48 21244
					47 53423	22 51221	98 24115	73 04511	49 21440
					48 55223	23 51401	99 24155	74 04551	50 23042
					49 55403	24 51443	2500 24351	75 20135	2651
					50 11043	25 53043	2501	76 20315	51 23402
					2351	26 53225	01 24531	77 22115	52 25220
					51 11245	27 53421	02 40115	78 22335	53 25404
					52 11441	28 55221	03 40155	79 22515	54 41020
					53 13041	29 55401	04 40351	80 24113	55 41202
					54 13241	30 11041	05 42133	81 24153	56 41244
					55 13423	31 11243	06 42313	82 24335	57 41440
					56 15203	32 11425	07 42355	83 24515	58 43042
					57 15245	33 13025	08 42535	84 40113	59 43402
					58 15441	34 13225	09 44133	85 40153	60 45220
					59 31041	35 13421	10 44313	86 40335	61 45404
					60 31241	36 35201	11 44515	87 42131	62 01204
					61 31423	37 15243	12 02133	88 42311	63 01404
					62 33023	38 15425	13 02313	89 42353	64 03022
					63 33203	39 31025	14 02355	90 42533	65 03220
					64 33421	40 31225	15 02535	91 44131	66 03404
					65 35223	41 31421	16 04133	92 44311	67 21024
					66 35403	42 33021	17 04313	93 44513	68 21240
					67 51023	43 33201	18 04355	94 02131	69 21422
					68 51203	44 33403	19 04535	95 02311	70 23024
					69 51245	45 35221	20 20133	96 02353	71 23220



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Jaguar Series FK & FR2001-3040

72 25202	47 10303	21 14101	96 31030	69 13414
73 25244	48 10345	22 14143	97 31234	70 15210
74 25440	49 12301	23 14325	98 31430	71 15252
75 41042	50 12523	24 14525	99 33012	72 15432
76 41240	2751	25 30121	2900 33230	73 31014
77 41422	51 14130	26 30301	2901	74 31230
78 43024	52 14145	27 30343	01 35230	75 31414
79 43220	53 14341	28 32143	02 35232	76 33010
80 45202	54 14541	29 32345	03 35414	77 33214
81 45244	55 30123	30 32545	04 51014	78 33414
82 45440	56 30303	31 34141	05 51214	79 35230
83 01024	57 30345	32 34325	06 51410	80 35412
84 01242	58 32145	33 52101	07 51452	81 51012
85 01424	59 32521	34 52143	08 53032	82 51212
86 03044	60 34101	35 52325	09 53234	83 51254
87 03242	61 34143	36 52525	10 53430	84 51434
88 03424	62 34341	37 54121	11 55230	85 53030
89 21044	63 52103	38 54301	12 55412	86 53232
90 21402	64 52145	39 54523	13 11230	87 53414
91 21442	65 52341	40 10143	14 11430	88 55214
92 23044	66 52541	41 10325	15 13012	89 55410
93 23404	67 54123	42 12141	16 13214	90 11214
94 25224	68 54303	43 12341	17 13412	91 11414
95 25420	69 54525	44 12543	18 13454	92 13030
96 41022	70 10145	45 14125	19 15234	93 13210
97 41204	71 10341	46 14321	20 15430	94 13410
98 41402	72 12143	47 14521	21 31012	95 13452
99 41442	73 12343	48 30101	22 31214	96 15232
2700 43044	74 12545	49 30143	23 31412	97 15414
2701	75 14141	50 30325	24 31454	98 31010
01 43404	76 14323	2851	25 33034	99 31210
02 45224	77 14523	51 32125	26 33412	3000 31410
03 45420	78 30103	52 32325	27 35214	3001
04 01224	79 30145	53 32541	28 35410	01 31452
05 01420	80 30341	54 34123	29 51010	02 33032
06 03024	81 32141	55 34303	30 51210	03 33410
07 03224	82 32341	56 34525	31 51252	04 35212
08 03420	83 32543	57 52125	32 51432	05 35254
09 21040	84 34125	58 52321	33 53014	06 35452
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11 21424	86 34541	60 54101	35 53412	08 51234
12 23040	87 52141	61 54143	36 55212	09 51430
13 23240	88 52323	62 54341	37 55254	10 53012
14 25204	89 52523	63 10125	38 11034	11 53214
15 25402	90 54103	64 10321	39 11412	12 53410
16 25442	91 54145	65 12103	40 11454	13 55210
17 41044	92 54521	66 12303	41 13034	14 55252
18 41242	93 10141	67 12525	42 13254	15 55452
19 41424	94 10323	68 14121	43 13434	16 11032
20 43040	95 12125	69 14301	44 15230	17 11410
21 43240	96 12525	70 14343	45 15412	18 11452
22 45204	97 12541	71 14543	46 15454	19 13032
23 45402	98 14123	72 30125	47 31034	20 13252
24 45442	99 14303	73 30321	48 31254	21 13432
25 01044	800 14345	74 32101	49 31434	22 15214
26 01402	2801	75 32301	50 33030	23 15410
27 01442	01 14545	76 32523	2951	24 15452
28 03204	02 30141	77 34103	51 33254	25 31032
29 03402	03 30323	78 34145	52 35210	26 31252
30 03442	04 32103	79 34521	53 35252	27 31432
31 21224	05 32303	80 52121	54 35432	28 33014
32 21420	06 32525	81 52301	55 51032	29 33252
33 23022	07 34121	82 52343	56 51232	30 33452
34 23204	08 34301	83 52543	57 51414	31 35234
35 23440	09 34523	84 54125	58 53010	32 35430
36 25242	10 52123	85 54323	59 53212	33 51030
37 25424	11 52303	86 54541	60 53254	34 51230
38 41040	12 52345	87 11030	61 53452	35 51412
39 41224	13 52545	88 11224	62 55234	36 51454
40 41420	14 54141	89 11434	63 55430	37 53034
41 43022	15 54325	90 13030	64 11014	38 53252
42 43204	16 10103	91 13234	65 11252	39 53432
43 43440	17 10301	92 13430	66 11432	40 55232
44 45242	18 10343	93 15212	67 13014	
45 45424	19 12145	94 13254	68 13230	
46 10123	20 12521	95 15434		



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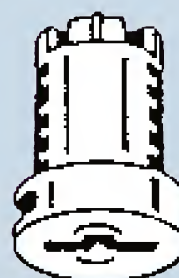
**AMERICAN
LOCK**

Series H10

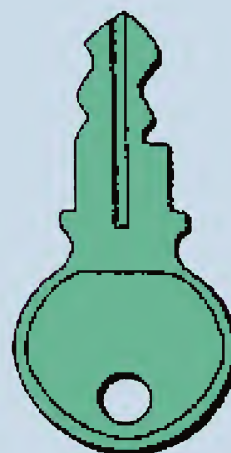
Blade Tumblers

V-Spring

Blade Tumblers



Key Blank



**EXPLODED
VIEW**

AMERICAN LOCK®

Blade Tumbler Cylinder, Series H10


Changing the Cylinder

1. Open lock, exposing retaining screw at the base of the exposed shackle hole.
2. Use a small blade screwdriver to remove screw.
3. Place lock on flat surface with short shackle side down and hit it with a leather or plastic mallet on the side of the lock. You are forcing the retaining pin into the space that the screw was occupying. If you will refer to the drawing, you will notice that the pin retains the cylinder by protruding into the slot of the cylinder cap. The key should be inserted into the cylinder and rotated approximately 30 degrees before striking the lock. The pin needs to move just enough to release the cylinder.
4. Use key to remove cylinder.
5. Place new cylinder in lockbody and rotate key counterclockwise approximately 30 degrees and push retaining pin with a small tool until it clears screw hole.
6. Check lock for proper operation.
7. Open lock and install retaining screw.

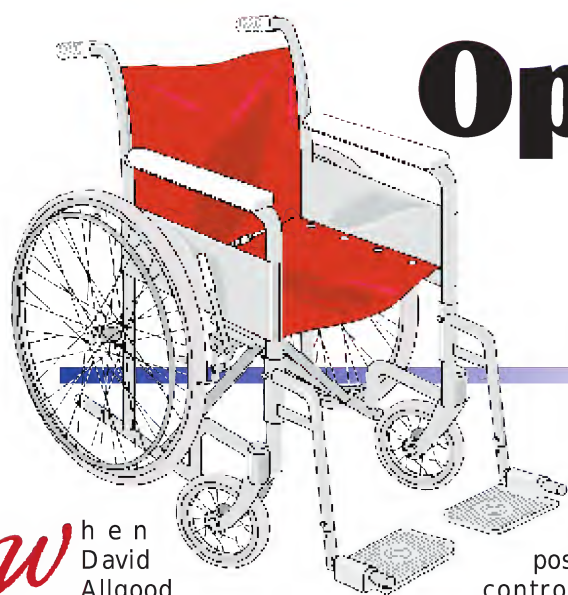
Disassembly of Padlock

1. Remove retainer with needle nose pliers by grasping retainer and pulling it out.
2. Remove balls. Shackle cannot be removed due to shackle retaining pins being pressed in place.

Reassembly of Padlock

1. Apply pressure to close shackle.
2. Insert the 2 locking balls into ball nest holes and apply pressure so that each ball is in the notch of each shackle leg. (A light grease may be needed to keep the locking ball from falling out of position.)
3. Insert the retainer into the cylinder hole with spring tip opposite of the retaining pin hole in the lockbody and push it down until it bottoms out.
4. Close shackle and keep it under pressure.
5. Insert cylinder with key and rotate clockwise until shackle stays locked.
6. Rotate key clockwise approximately 90 degrees until shackle opens. Retainer assembly is now wound properly.
7. Rotate key counterclockwise approximately 30 degrees and push retaining pin in place with a small tool.
8. Check the lock for proper operation.
9. Open lock and install retaining screw. 

**AMERICAN
LOCK®**



Opening Doors *for the Disabled*

When David Allgood of Louisville placed a fast food order to go, he fully expected to be able to exit the restaurant safely. But David didn't count on the difficulties posed by the restaurant's energy-saving double door entry. Nor did he take into consideration the proximity of the curb to the exterior door. Though these aren't necessarily problems for the average customer, David Allgood isn't the "average" customer. He is a quadriplegic, paralyzed from the neck down and reliant on a power wheelchair for mobility.

In this case, David was forced to wait for another restaurant patron to open both sets of doors for him. Unfortunately, the exterior door closed on his jacket, causing his wheelchair to buck, slip off the curb, and spill him onto the pavement.

David's story illustrates the inconveniences that arise when storefront doors and entryways are not designed and equipped with accessible hardware for the disabled.

Accessibility

Making public buildings accessible to the estimated 49 million Americans with a disability is no longer just a matter of convenience. It's the law. According to the United States Architectural and Transportation Barriers Compliance Board, the agency responsible for writing Americans with Disabilities Act (ADA) guidelines, any new construction or renovation of a public building after 1993 must comply with the United States Department of Justice's requirements for accessibility.

The Department of Justice has outlined numerous regulations

regarding door size, positioning, mounting height for controls and operating force for accessible public entranceways, and Section 4.13.12 of the ADA Guidelines is very specific in its requirements regarding access power door openers.

So how can contractors and construction engineers keep up with

the growing list of ADA guidelines and government codes? Ashley Rolfe, group vice president of sales and marketing for Newman Tonks Group USA, recommends that contractors familiarize themselves with the product lines of reputable manufacturers of access door operator equipment.



1. The Senior-Swing is a versatile two-in-one swing door operator which allows opening doors automatically or manually.



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"It's our responsibility as the manufacturer of NT Dor-O-Matic architectural hardware, a full line of access door operators, to assure that our products meet with rigid ADA requirements," said Rolfe. "For example, we offer several types of power door openers for both external and internal applications."

The Senior Swing

The Senior-Swing™, NT Dor-O-Matic's heavy duty, two-in-one door operator, is suitable for interior or exterior installation and offers versatility with carefree electro-mechanical operation (see Photograph 1). To alleviate maintenance problems that might result from overuse, the Senior-Swing features advanced microprocessor controls that allow the access operator to open the door automatically for the disabled, and yet be used in manual mode for all other traffic.

Because Senior-Swing is a low energy power door operator as defined by A.N.S.I. A156.19, it does not require carpets, guide rails or other safety devices.

Senior-Swing is a fully electro-mechanical operator eliminating the need for pneumatic or hydraulic lines and remote compressors.

Some of the special features of the Senior-Swing is:

Push-N-Go: Whenever the door is opened approximately 5 degrees, the operator opens automatically providing maximum convenience.

Power Boost Closing: Difficulty in closing against stack pressures is automatically sensed and additional closing force is generated to assure positive closing.

Safety Stop/Reverse: The operator will sense obstructions while opening and will stop and close.

Built for rugged conditions, Senior-Swing can handle doors up to 200 lbs. on applications such as: Schools, Universities, Libraries, Banks, Shopping Malls, Office Buildings or Restaurants. It is easily installed on practically any type door and frame.

A varied selection of activating push button and push plate switches is available, including remote control and battery-operated systems. All NT Dor-O-Matic switches are of the low voltage type and are available with the international wheelchair logo.

Continued on page 100

Continued from page 98

"Our products are unique," Rolfe said, "because they function as low-energy power operated door systems, and don't require guide rails or safety carpets, as is specified in ANSI 156.19."

The Senior-Swing ensures entryways meet code requirements for an access door operator by providing a field adjustable opening time with a hold open time of 5 to 30 seconds in the automatic mode and 1 to 30 seconds in the manual mode.

The Junior Swing

For interior accessibility at low cost without diminishing the effectiveness

of an entrance design, NT Dor-O-Matic also produces a lighter duty door operator, the Junior-Swing™ (see Photograph 2).

There are no special tools required for the Junior-Swing operator's simple mounting procedure. Easy to understand instructions are provided with each unit for the proper location of the Junior-Swing operator.

After mounting, just plug the Junior-Swing operator in a standard 115v. AC outlet located nearby. The Junior-Swing operator may also be wired direct to an AC line if desired.



2. The Junior-Swing is a light duty interior door operator allowing both automatic and manual operation.

Completely self-contained with electromechanical construction and solid state controls, the Junior-Swing is exceptionally quiet and requires little energy to operate. The Junior-Swing can be easily mounted to either side of the entrance for push or pull operation and also features both Push-N-Go and Safety Stop as the Senior-Swing.

Both the Senior-Swing and Junior-Swing have an automatic opening force of less than 15 pounds, with equally low closing force. When operated in the automatic mode, they both offer power opening and spring closing.

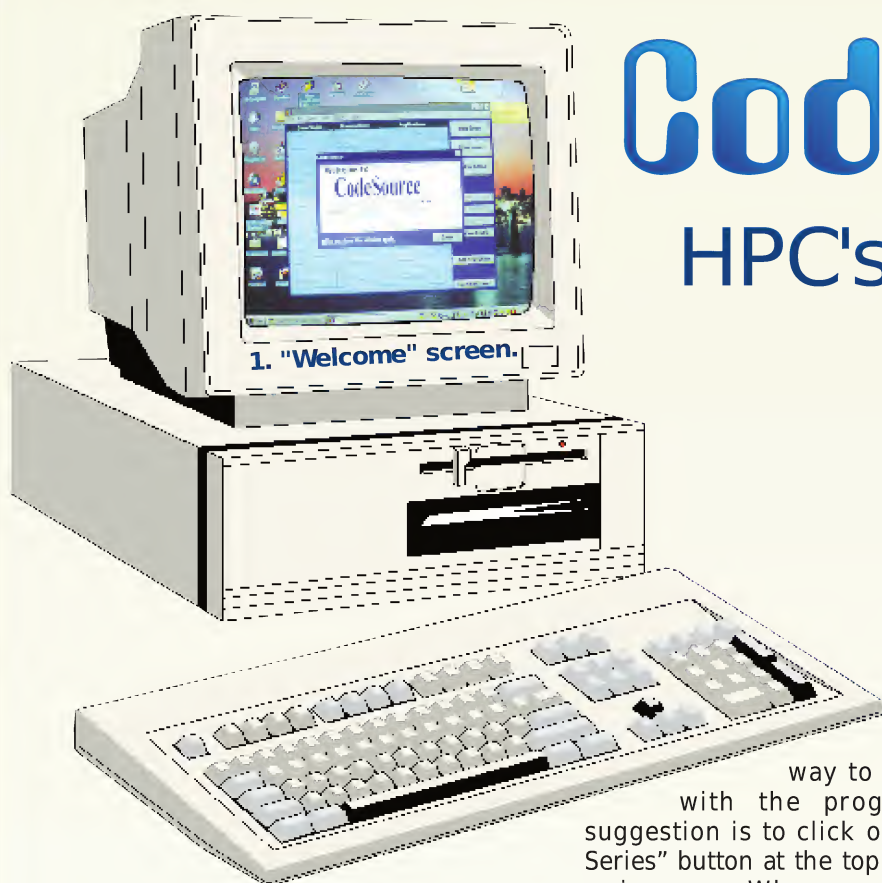
"NT Dor-O-Matic is dedicated to helping provide the physically disabled with equal access to public buildings," said Rolfe. "And we are equally dedicated to helping the building construction industry meet ADA guidelines with minimal cost and reconstruction. Because our products meet all ADA and ANSI/BHMA standards, we can help take the guesswork out of entry door design and construction."

For more information on the Americans with Disability Act or American National Standards Institute building codes and regulations, please call the U.S. Architectural and Transportation Barriers Compliance Board at 1-800-USA-ABLE. **TNI**



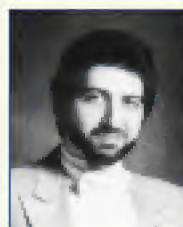
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CodeSource

HPC's Code Software



by
Sal Dulcamaro,
CML

HPC CodeSource is a Windows based application and will work with either Windows 3.1 or Windows 95. Its graphics are colorful and attractive. When you start up the program, it begins with a short animated sequence of a key entering a cam lock.

The version that I tested (with Lockshop, Padlock and Vehicle Codes) takes up 17 megabytes of hard disk space and 4 megabytes of RAM to operate.

Using CodeSource

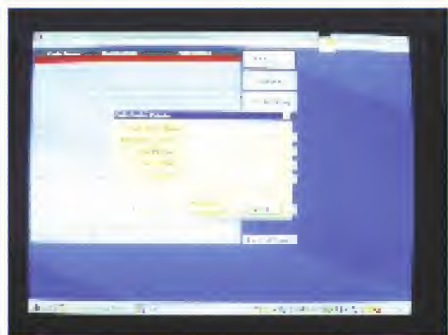
After the starting animated sequence, Photograph 1 above, shows a "Welcome" screen with a suggestion

as to the quickest way to get started with the program. That suggestion is to click on the "Find Series" button at the top right of the main screen. When you do that, you call up a requester box shown in Photograph 2. This particular feature is somewhat unique compared to the other programs. Most of the other programs will also let you search by way of the code number, series or lock brand, but CodeSource also lets you search by way of the HPC code card (punch or motorized code machines) or even the key blank.

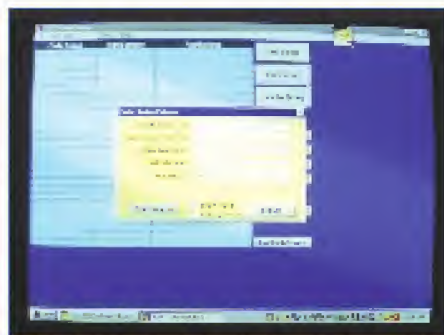
The key blank number B48 has been input in Photograph 3, with the resulting search in Photograph 4, which shows the six different code series that used the B48 GM key blank. The applications column indicates to which locks on the car that the codes apply, and also the car model years.

Program Options

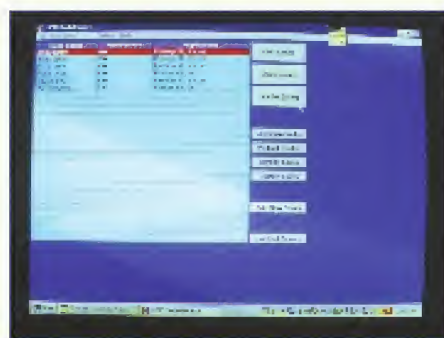
Before I go fully into searching for a code with CodeSource, let's briefly explore some of the program's options. At the top of Photograph 5, you can see a pull down menu for the category of "Sort". The choices are "Manufacturer" or "Series." If your choice is "Manufacturer," all code series will be listed in the alphabetical



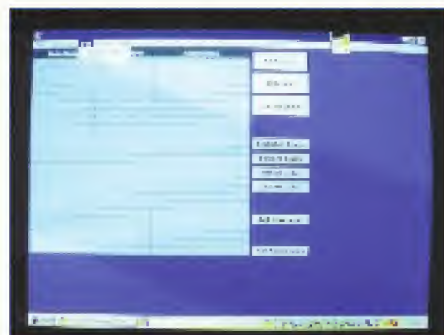
2. The "Find Series" button at the top right of the main screen will call up the following requester box.



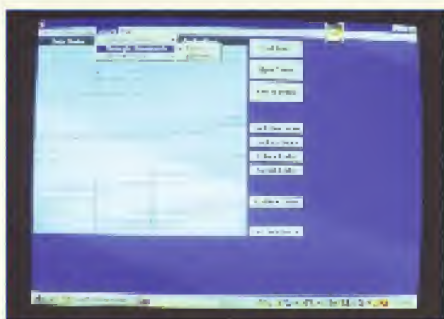
3. The key blank number B48 has been input and the resulting search is shown.



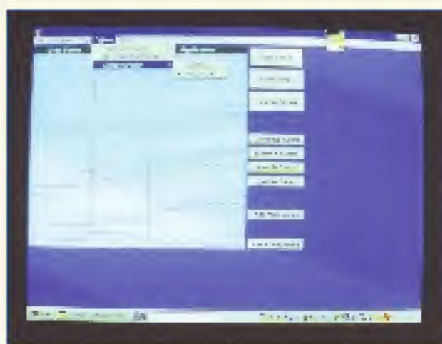
4. The resulting search shows the six different code series that used the B48 GM key blank.



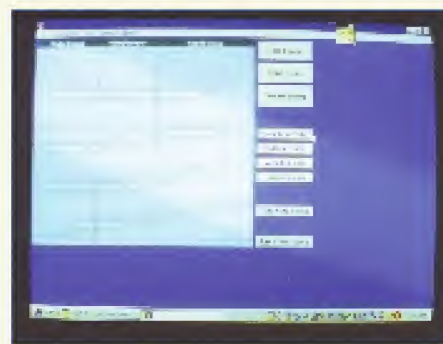
5. A pull down menu for the category of "Sort" offers the choice of "Manufacturer" or "Series."



6. Under "Options," you will find choices for Micrometer Measurements are "Inches" or "Millimeters."



7. Under "Options Windows Version," your choices here are Windows 3.1 and Windows 95.



8. If you are not looking for a particular code number, you can get a listing of available code series.

order of the Manufacturer's name. That means that Master will come before Yale, even if the Master lock code series starts with the prefix "X" and the Yale lock code series starts with the prefix "A". Now if one brand has many different code series, they will list alphabetically within that brand.

If the sorting choice is "Series," all code series will be listed alphabetically regardless of the brand of the lock. If Master and Yale both have an "A" code series, they may be listed in sequence or at least fairly close to each other. While

other code series of the same brand, with prefix letters further in the alphabet, will be found much further down the list of code series.

In Photograph 6, under "Options," you will find "Micrometer Measurements" highlighted. Your choices for Micrometer Measurements are "Inches" or "Millimeters."

Highlighted under "Options" in Photograph 7, is "Windows Version." Your choices here are Windows 3.1 and Windows 95. You just choose the option that matches the operating system of your particular computer.

CodeSource may be purchased in sections: Lockshop Coded, Padlock Codes or Vehicle Codes. You may choose to buy the program sections as you need them, or buy it all at once in the complete version.

In Search of Codes

If you are not looking for a particular code number, you can get a listing of available code series for any of the three main categories. Photograph 8, has an arrow pointing to the box that says "Lockshop Codes". Clicking on that box will get you a list like that in Photograph 9.



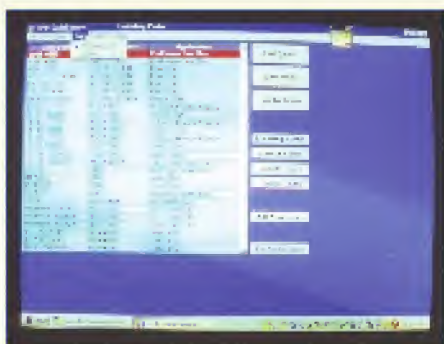
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9. Clicking on the "Lockshop Codes" box will give you the following list.

Under the item "Sort" at the top of the screen, you can see a check mark in front of "Manufacturer." If you look down the list, you will find clusters of code series by Manufacturer in alphabetical order.

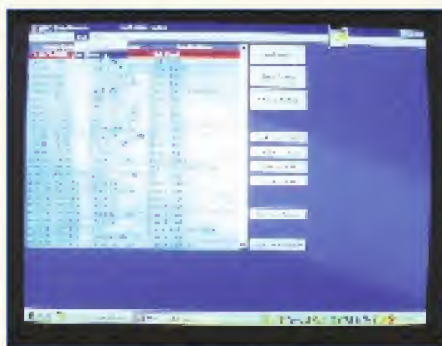
Near the top, you will see a cluster of four "ARCO RIFKIN" code series. Those are all the codes for that manufacturer, and they are alphabetized within that group of four. Number only series (without lettered prefixes or suffixes) come first, then all lettered series from A to Z.

When choosing "Sort" by "Series" in Photograph 10, all series are listed alphabetically regardless of brand. All the code series on screen are number only series. You would have to scroll down the screen quite a way to get to

the first code series with the prefix "A" and then they would continue alphabetically to "Z." Notice that the manufacturer names are not listed alphabetically.

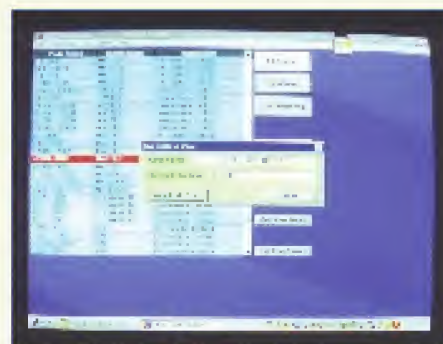
Selecting a Code Number

Photograph 11, shows Padlock Codes (series) sorted alphabetically by Manufacturer. The list has been scrolled down to Master brand padlock codes. The Master X2001-3000 code series has been highlighted. When clicked it generated the requester box in the middle of the screen. In the requester box, the "Key Code To View" selected is X2345. You will see a small arrow in the



10. When choosing "Sort" by "Series," all series are listed alphabetically regardless of brand.

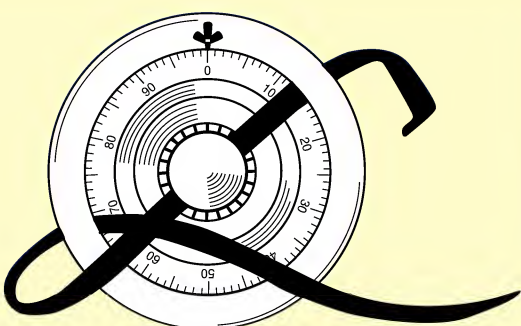
box which says



11. A Padlock Codes (series) sorted alphabetically by Manufacturer.

"View Code Specs." All you have to do is left click your mouse, and the code specifications will appear on your computer screen.

The code specifications promptly appear on screen as in Photograph 12. The code series is listed, as is the specific code number. Beside the key biting information, also displayed is the HPC card numbers for the HPC1200CM motorized code machine and the HPC1200PCH punch machine. The code cutter and jaw are listed for the motorized machine, as are the punch and jaw for the punch machine.



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12. The code specifications promptly appear on screen. The code series is listed, as is the specific code number.



13. The Master padlock key bitting "2140" is displayed.

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The key cutting specifications are listed in the middle of the screen, which includes spacing and depth information. As indicated earlier, you have the choice between inch or metric dimensions. Toward the bottom of the screen is a key blank comparison chart which includes key blank numbers by original, Ilco, Curtis, Silca and Ilco EZ numbering systems. There is a description of the key application and a displayed keyway profile.

You have the option to add notes, print the screen information, or immediately cut the key if you have an HPC Codemax(TM) key machine.

There is also a "View Key" icon which gives you a preview of how the cut key will generally appear. The Master padlock key bitting "2140" is displayed in Photograph 13. Above the displayed cut key is the indication of whether the key is tip or shoulder gauged. Double sided keys are shown cut on both sides.

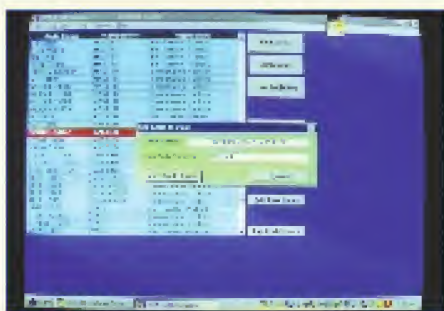
CodeSource provides specifications for code cutting with the HPC 1200 as well as depth and space measurements for micrometer machines such as Framon.

In Photograph 14, I've selected a Master combination padlock code (X21344). After left clicking "View

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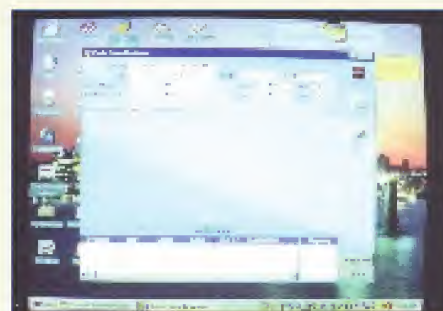
14. I've selected a Master combination padlock code (X21344).

Code Specs," the screen in Photograph 15 appeared. Since it is a combination

lock, there are no key cutting specs. The combination listed is: 26-16-10.

Find by Bitting

One valuable feature of CodeSource is "Find by Bitting." A variation of this same feature is available (as an add-on for an additional cost) with some of the other code programs, but it is impressive nonetheless. After selecting a code series, you click on "Find by Bitting." A requester asks for a key bitting and then searches for a code number that matches the bitting.

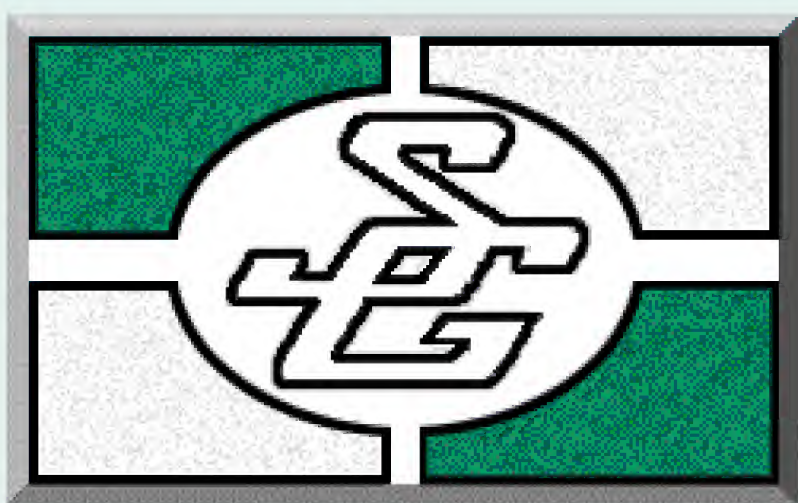


15. Since the code is a combination lock, there are no key cutting specs.

This is useful information for the owner of a used car, where keys but no codes were provided. A smart locksmith could charge a nominal fee for providing this information to his/her customers who own used cars. All you would have to do is explain the difference in price for fitting a key by code compared to disassembling a steering column or a door panel and they would probably see the light.

HPC's CodeSource is available through all authorized HPC distributors.

For additional information about any HPC products, contact HPC at: 800/323-3295. **TNL**



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Opening a Mini Diebold ATM



by Carl Cloud

Banks around the country aren't shutting their doors and closing. They're just shrinking! The once fortress of hewed stone standing as the pillar of financial strength within our community has now regressed to the size of a phone booth! I'm referring to all of those free standing Automatic Teller Machines that are springing up like mushrooms in every part of town. They are being installed at super markets, shopping malls, drug stores, post offices and even in your local liquor store or bar.



1. A mini Automatic Teller Machine with a Diebold safe.

Entrepreneurs are making money in the money business. They purchase the mini ATMs and install them at high traffic public areas. The banks and credit card companies collect their fees from the card holders for the convenience of withdrawing cash. The owner of the machine is paid a commission on each transaction. Cash is reimbursed to the machine owner for the amount paid out the bank customers.

According to the location or volume of use, these mini banks can hold a lot of twenty dollar bills — up to the six figure bracket! If you look inside these containers, you'll find a maze of wires and electronics, whirling motors with blinking lights and various alarm devices. The portion that holds the money is a safe. Name tags on the door list companies

such as Allied Gary, Diebold, Armor, to name just a few. These stand alone units are built tough to keep out the bad guys.

Not unlike a safe in any business work place, these safes can malfunction or be abused by the operator. If you can believe it, combinations for these safes are just as susceptible for

door standing open. Two dials, (La Gard top reading) are positioned side by side. The dial on the right only looks different in the photo because the black plastic center cover has been removed. The left dial is mounted onto La Gard's standard dial ring finger grip handle.

A closer look shows the right dial to be a normal top reading 'Restrict-A-Vision' design. The viewing window of the left dial has no numbers. There is a small image of a 'locked padlock'. This image changes to an 'unlocked padlock' when dial is turned. I'll explain this later in the article (see Photograph 2).

The first thought of an experienced safe technician is, "These dials are mounted really close together, the right combination lock must be

becoming lost or forgotten! Therefore, a phone call to your shop may begin with "Can you open an Automatic Teller Machine?"

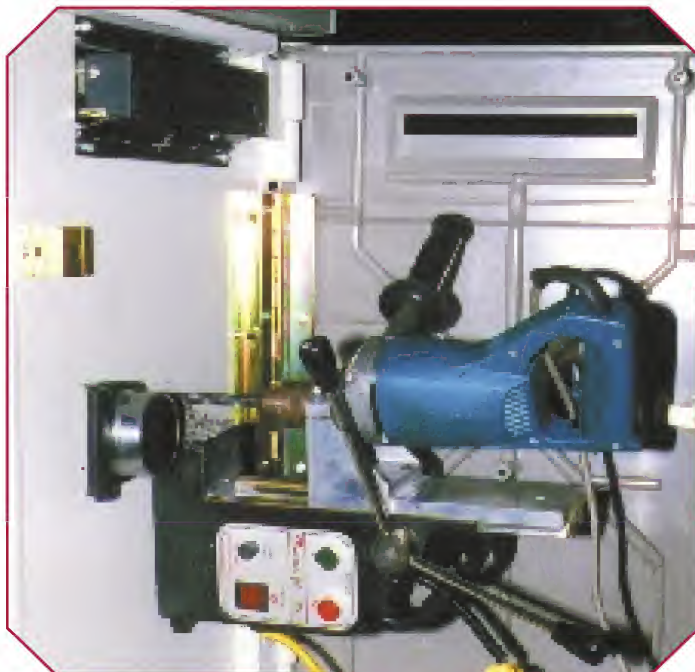
To take away some of the mystery of this push button, light flashing, clicking and whirling mighty mite, let's peek inside one made by Diebold. Photograph 1, shows the front of the ATM with its key locking cover



2. The combination dial has been removed. A small locked padlock image is shown in the viewing window. When the door locking bolts are retracted, the image changes to an open padlock.



mounted vertical up or vertical down." In the normal lock installations, this assumption would be correct. We will check this lock setup later in the article.



3. A MiniMag drill rig setup for drilling the door.

The first step is to remove the combination lock dial. The spindle in a La Gard is flared outward on the dial end. It is installed by inserting the threaded portion through the centered hole in the face of the dial. The spindle is then pressed in until the flared end is wedged into the dial. If you attempt to pull the dial, it will wedge tighter onto the spindle.

To remove the spindle, drill away the end of the spindle until the wedge portion is removed. The dial will wobble loose and can be easily pulled from the remaining spindle end.

I use my safe lock drill templates "Drill Points" to locate the exact selected drill location. A drill point template is a



4. The first view when the safe door is open.

scale size photograph of a cut away safe lock showing an X-ray view of the drilling locations within the lock case. The lever fence was my target.

The faint lines around the spindle in Photograph 2, was used to center my template. The template is placed over the spindle and pressed against

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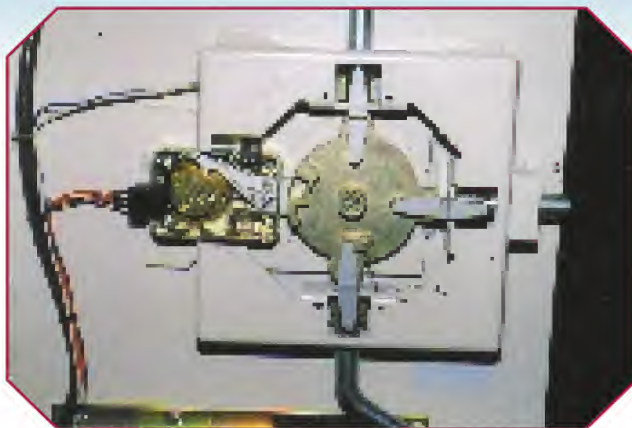


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5. Removed covers show the locking system.

the door. It is then slid up as far as the spindle will allow and a line is drawn across the top edge of the template. The template is then slid down and a second line is drawn. The same procedure is used for the right side lines. A dividing line is drawn between the outer lines. The center lines become the positioning indicators for the template.

When the safe manufacturer drills the spindle hole into the door, it is usually quite oversized and the spindle may sag or be off center when the dial and dial ring are removed. This centering method insures the spindle is perpendicular to the door face and my template is in a perfect position.

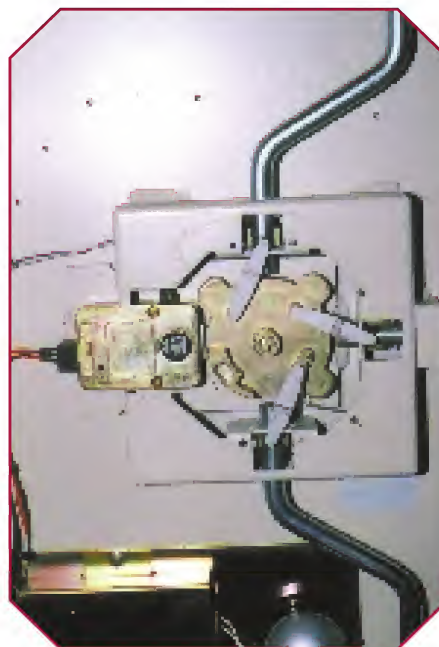
The door is one-half inch thick. A pressure bar could have been used, but I chose my MiniMag for ease of drilling and a precision straight hole (see Photograph 3). The steel plate of the door drilled very smoothly with a standard high speed bit. The hard plate gave a good resistance to drilling. A Strongarm carbide bit gnawed almost through before something grabbed the tip and tore it loose. A second bit zipped its way through the remaining hard stuff and up to the lock case.

Photograph 4, is what you'll see when the door opens. When the large round cover and the lock case cover is removed you will see the locking layout (see Photograph 5). The combination lock case is fitted with a lever switch. This can indicate an open or locked position of the lock, or could provide a paper trail of the hour and day the safe was opened. The case is also fitted with a wheel switch to provide an alarm for a duress opening.

Behind that large round cover is a La Gard 2503 bolt work system, with a

few modifications. The pan has been cut away to accept the combination lock case. And yep, the lock is mounted right hand. You will note the lack of a wheel pack or lever and fence within the 2503 version.

The yoke (the disk turned by the dial) has only one purpose. It is to retract or extend the locking bolts of the door. The yoke has a notch to accept the bolt of the combination lock. Until the combination has been dialed, the yoke cannot rotate and retract the door locking bolts. The part number for this new yoke is: 2531-4 M modified.



6. The rotated yoke retracts the door locking bolts.

Photograph 6, shows the yoke turned to retract the locking bolt of the door. That closed padlock image in the viewing window of the dial simply indicates the locking bolts are extended to the lock position. The open padlock image reflects the opposite. Aren't the designers clever little critters?

If a bank teller gives you a bad time, about all you can do, is stomp away. At least with these mini machines, you can take out your frustrations with a swift kick to its payout slot. **TNL**



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THRU THE KEYHOLE

A Peek at Movers & Shakers in the Industry

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Would you like your company and products to be profiled in Thru The Keyhole? Please call Managing Editor, Greg Mango, at (630) 837-2044.

Securing The Future With American Lock

The very sight of American Lock's new Model 2010 securing a gate or door is in itself a deterrent to most break in attempts. With the introduction of the Model 2010, a new shackleless padlock machined from solid bars of steel, American Lock has entered a new era of product innovation.

"The Model 2010 provides superior padlock protection ideally suited for service vehicles and vending machines at an affordable price. Due to its high-quality construction, this padlock is proven to be resistant to the most violent attempts to override it

including attacks from blow torches, hammers, and dent pullers.

The case hardened, solid-steel construction of the Model 2010 provides maximum protection against drilling and sawing, while its unique shackleless locking bolt design resists crowbar attacks and prying. The padlock also features an American Lock pick-resistant, 6-pin tumbler for added security. Additional features of the rekeyable Model 2010 include: rust-resistant, triple-plated body and superior cylinder pull strength.

To many locksmiths, it's probably no surprise that the inventor of the combination padlock should have a renaissance of new ideas as the



industry heads into the next millennium. In fact, the Model 2010 is just one of the innovations that American Lock has brought to market in recent months. The company has also made a big splash with the



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introduction of laser engraved padlocks direct from the factory that permanently customize padlocks for safety lock out applications.

In 1991, American Lock pioneered the method of permanently marking padlocks using dot matrix. Since then, permanently marking padlocks has become a popular option in the safety lock out market. The new laser engraving method takes the concept of marking locks to a new level of sophistication.

Laser engraving is the best way to put easy-to-read, non-removable markings on padlocks. Laser-engraved locks are easily identified, because the marking is clear and clean.


American Lock is the only manufacturer capable of laser engraving padlock bodies with a company's name, logo, worker's name, identification number, or special coding for instant identification. Because American Lock offers a variety of typestyles and font sizes, just about anything can be engraved on the lock.

For laser engraving, American Lock offers solid body aluminum

padlocks available in eight colors and three shackle lengths, as well as brass locks. American Lock's color coded aluminum padlocks comply with OSHA's lockout tagout procedures for general industry (Title 29 CFR1910.147), which is third on OSHA's list of the Top 10 Most Violated codes.

The introduction of the Model 2010, along with innovations like our laser engraved padlocks, has created a lot of excitement at American Lock. For locksmiths and distributors, these new products represent a real opportunity.

In addition to new products and features, the company is expanding its merchandising efforts through a variety of promotions, incentives, and special pricing options. For example, the company is carrying on its award-winning packaging tradition with the introduction of a new padlock sales center display for U.S. and Canadian retail outlets. Whether its bold new product introductions or refinements in marking techniques, American Lock continues to set the pace in the industrial locksmith market.

For more information on American Lock products call: 800-323-4568. 



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TEST DRIVE!

If there is one tool that can be universally found throughout the locksmith industry, it is the pin kit. There's not a locksmith business in existence that does not have at least one — and usually more. Pin kits are available in all shapes and sizes, and the manufacturer that produces the most is LAB.

Long known for their quality and innovative designs, LAB produces not only a number of different pin kits, but also many of the original manufacturer's pins. One of the most recent introductions to the vast LAB product base is called the Mini Dur-X.

PRODUCT DESCRIPTION:

When you think of a pin kit, the large desk top model is what usually comes to mind. These are by far the most universally used, but not always the most practical. There are occasions when a product brand specific pin kit is all that is needed. This is where the Mini Dur-X shines. Each kit is designed for a specific brand or style of lock and contains only original manufacturer's pins.

There are 15 kits to choose from, including: Kwikset LMDKWK; Schlage LMDSCH; Sargent LMDSGT; Yale LMDYLE; Security Pins LMDSEC; Dexter LMDDXT; Weiser LMDWSR; Ace LMDACE; Master Padlock LMDMAS; Arrow LMDARW; Weslock LMDWES; Interchangeable Core LMDICC; Chrysler LMDCHR; General Motors LMDGEM; and Ford LMDFRD.

The Security Pin kit includes top spool pins and serrated bottom pins to increase pick resistance, and is the only non specific manufacturer Mini Dur-X pin kit.

Mini Dur-X by LAB

CONSTRUCTION & DESIGN:

The Mini Dur-X measures 7-1/2 x 4-1/2 x 1-1/2 inches. The case is of a super tuff — yet light— polyethylene construction. This style of case is much stronger than the old style plastic cases. A clearly marked location chart is glued to the inner top for quick and easy referencing. Each kit also contains springs.

SPECIAL APPLICATIONS:

The Mini Dur-X pin kits are ideal for a variety of applications. For those servicing primarily one specific brand of lock — such a Schlage — there is no need for a \$5,000 pin kit with 847 different pins, master pins and springs, most of which you will never use if all you service is Schlage locks.

The Mini Dur-X is also great to take with you the next time you are servicing say, Sargent locks. Rather than going to the job site, removing the lock, taking it back to your service vehicle, keying the lock, taking it back to the location and installing it, you can key it on the spot. This is a great time saver. That's not to say that you could not take



your desk top pin kit with you and do the same thing, but how many do? Besides, the desk top kit in your service vehicle is usually attached to the work bench to prevent it

from flying around and smacking you in the back of the head when you slam on the breaks. You reckless driver you!

The Mini -Dur-X is also easier and faster to use because it is brand specific, eliminating the need to search the many bins of pins on the larger desk tops for the correct selection. The Mini Dur-X is neatly laid out in rows of master pins, driver pins, bottom pins and springs.

COMMENTS:

The Mini Dur-X in by no means a replacement for a desk top kit, but it does fill a niche and can prove to be a desirable alternative in many instances.

Suggested retail price for the Mini Dur-X pin kits is \$50.00. If you would like more information on the Mini Dur-X pin kits or would like a LAB catalog, call: 800-243-8242. **TEL**

IN SUMMARY:

DESCRIPTION: Mini Dur-X pin kit from LAB.

PRICE: \$50.00 suggested retail.

COMMENTS:

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TEST DRIVE RESULTS:

The Mini Dur-X in by no means a replacement for a desk top kit, but it does fill a niche and can prove to be a desirable alternative in many instances.